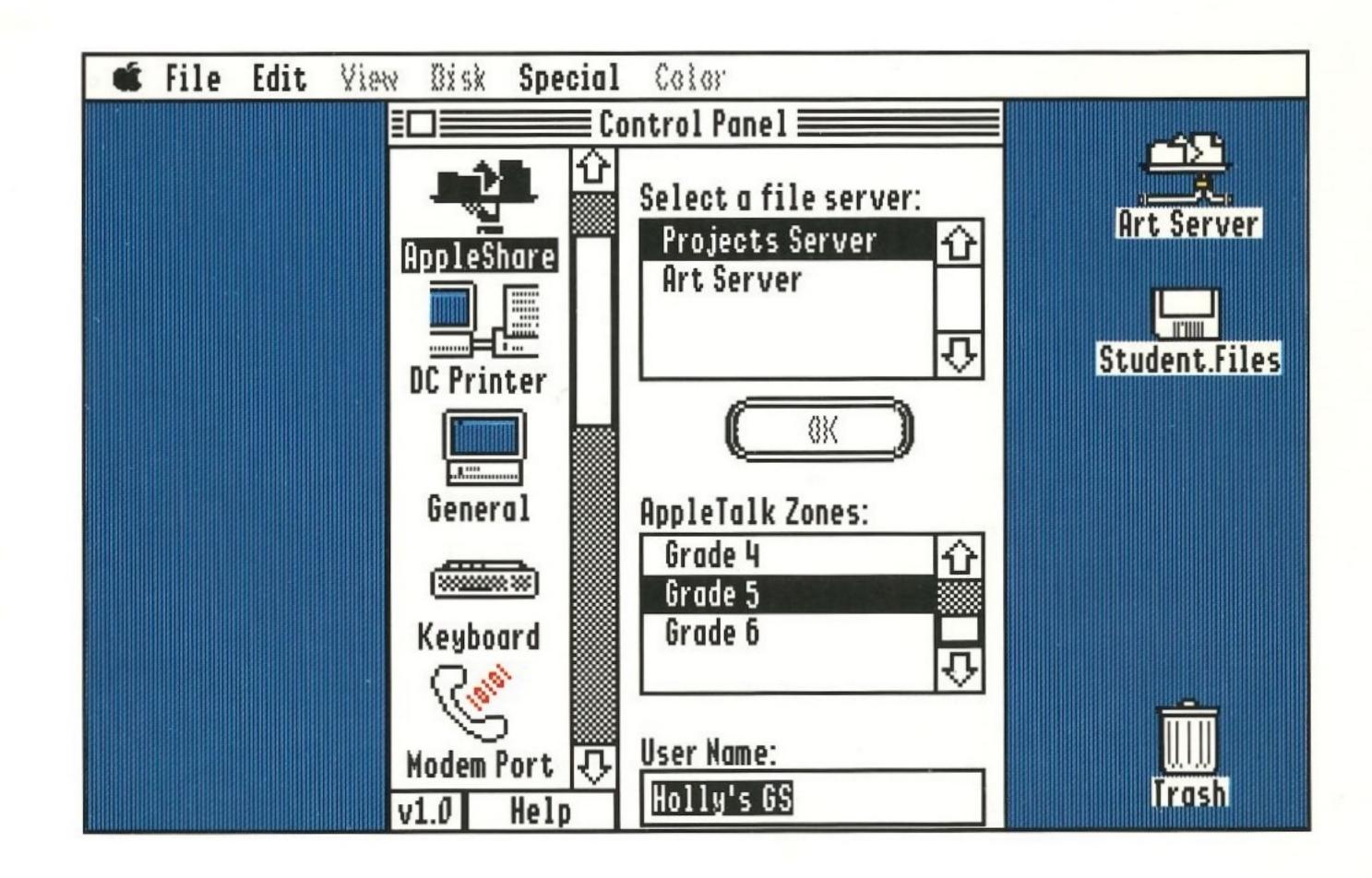


AppleTalk® Network User's Guide for the Apple IIGs®



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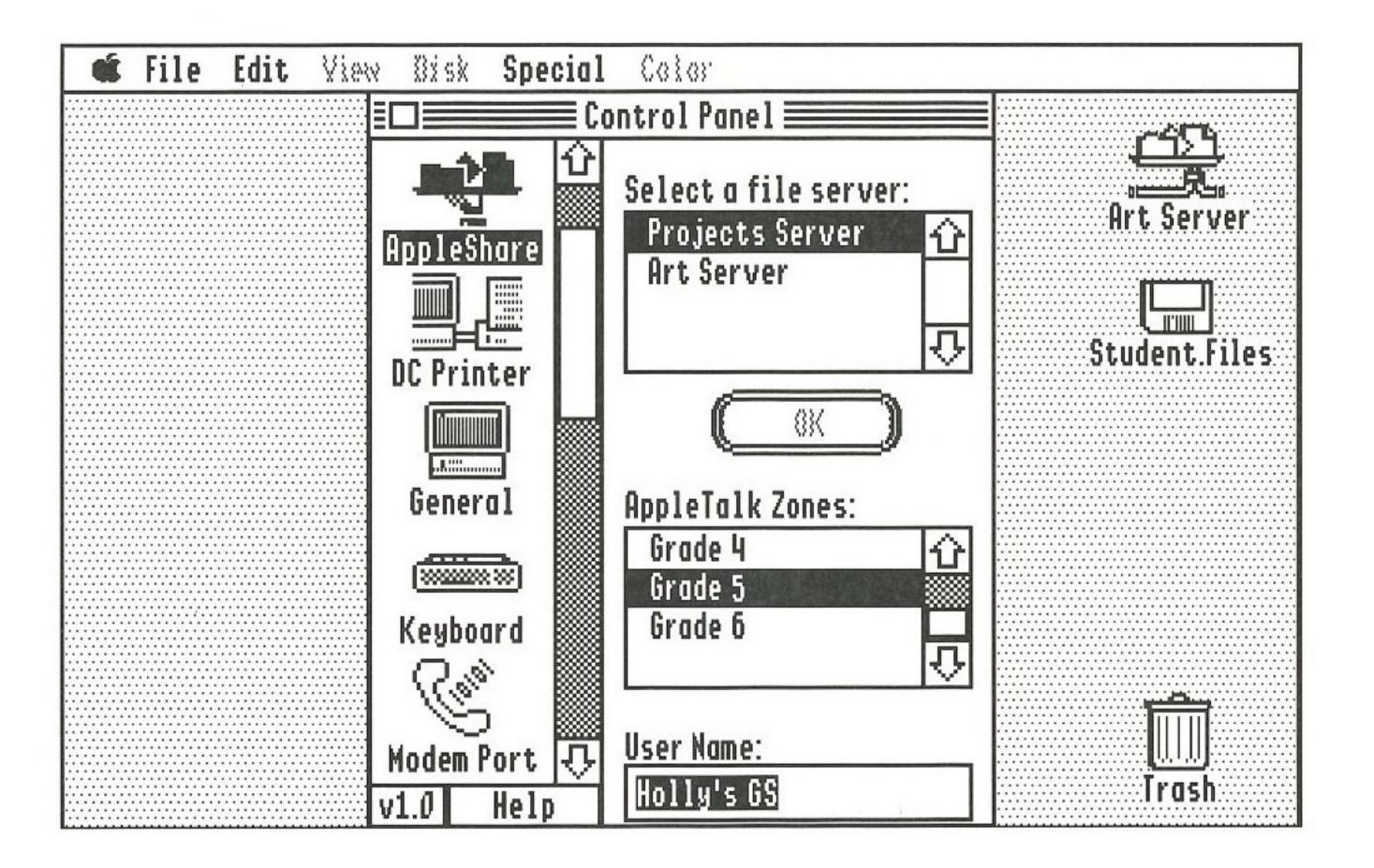
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About This Guide

F YOU USE YOUR APPLE IIGS® COMPUTER AT HOME, CHANCES ARE YOU'RE using it as a stand-alone computer—that is, as an isolated computer system, unconnected to other computers except perhaps by means of a modem. But if you use your computer at school or at work, it may be part of a network—a system of interconnected computers and peripheral devices, such as printers and file servers.

This user's guide tells you how to use your Apple IIGs computer as part of a network with Apple IIGs System Software Update, version 5.0.

Here's what you'll find in this guide:

Chapter 1, "Introduction to Networking With the Apple IIGS," provides an overview of networking, explaining basic concepts and vocabulary that can help you use your network effectively.

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- Chapter 2, "Setting Up," describes the tasks required for connecting to a network, for setting up your file server (if you have one), and for preparing your Apple IIGs to work with a file server.
- Chapter 3, "Using an AppleShare® File Server," explains the use of file servers, and provides step-by-step instructions for accessing and using a file server with your Apple IIGS.
- Chapter 4, "Printing Over the Network," describes how to use a shared ImageWriter® or LaserWriter® printer over the network.
- Chapter 5, "Troubleshooting," provides guidelines for identifying and solving common network problems.

What you need to know

This guide assumes familiarity with the Apple IIGS. If you aren't sure how to perform a certain Apple IIGs function, refer to the Apple IIGS System Software User's Guide, or other titles mentioned in the section "Related Books and Manuals" later in this preface. These guides can provide specific information, such as how to set up AppleShare file and print servers, use Aristotle™ software, and connect LocalTalk™ cables.

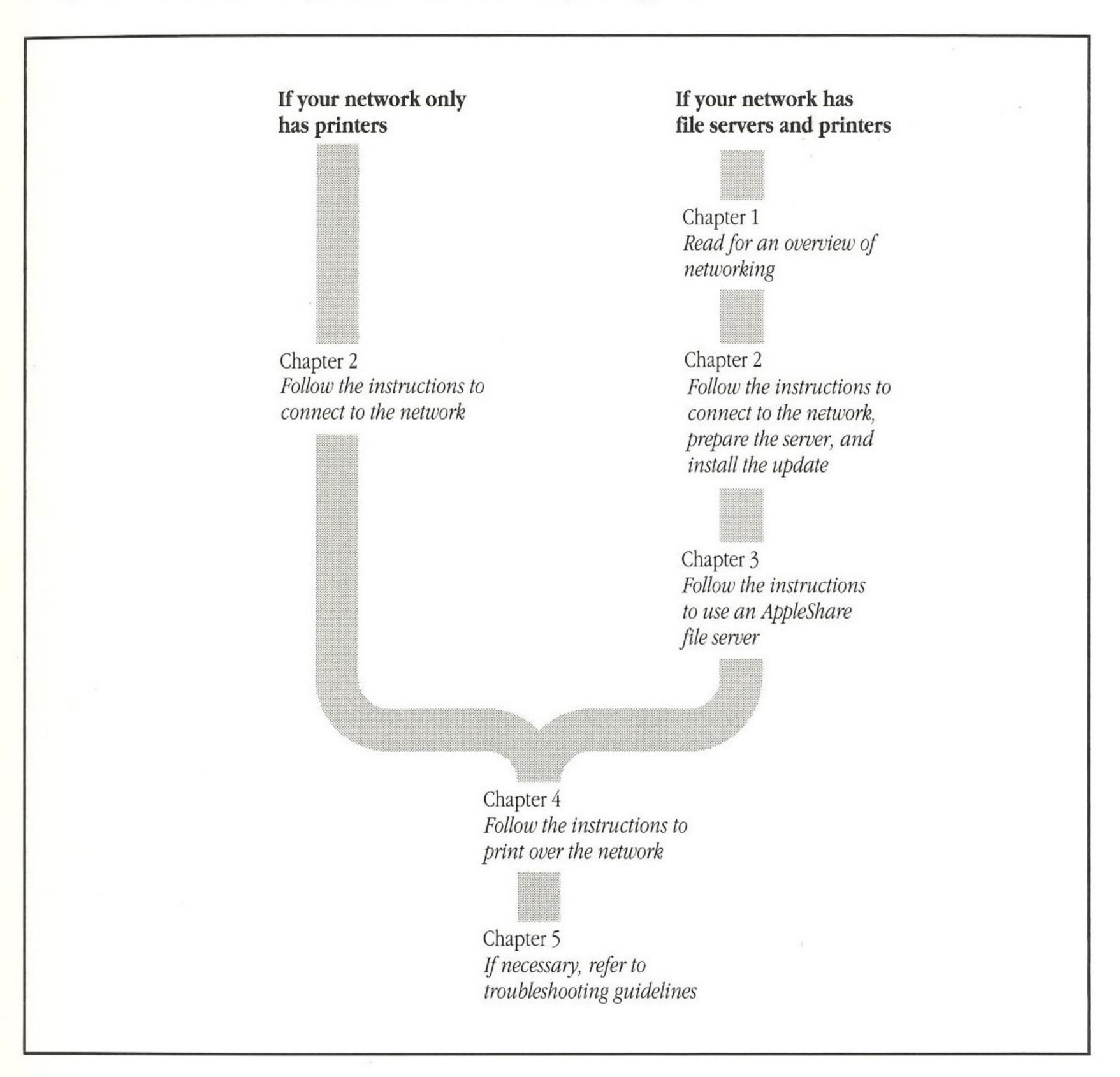
Important Many of the instructions in this guide require you to use the Control Panel to configure your computer system. These instructions assume that your computer has ROM version 01. Some of the Apple IIGs computers on your network may have a newer ROM version, in which several of the Control Panel options are slightly different.

> If you don't know the ROM version number of an Apple IIGs, look at the bottom of the screen that appears whenever you switch on the computer. If any computer has a newer ROM version, refer to Chapter 9 of the Apple IIGS Owner's Reference that came with that computer for instructions on using the Control Panel. \triangle

How to use this guide

Figure P-1 provides a road map to this guide. Follow it to determine what you'll need to read for your particular network configuration.

Figure P-1 Road map of the AppleTalk Network User's Guide for the Apple IIGS



Terminology and conventions

To use this guide more effectively, you should recognize the following terminology and conventions used in the text.

When a new term is defined, the term appears in boldface type.

△ Importan

Material set off in this manner is essential information that you need to read before you continue. \triangle

* By the ways: Paragraphs like this one contain interesting sidelights or information for specific features.

Warning

Warnings like this one alert you to situations in which you might damage your equipment or lose data if you don't follow the instructions carefully.

The audience for this guide

This manual is intended for use by anyone in your school or organization. It provides all the information required for setting up and using an Apple IIGs computer as part of an AppleTalk® network system. Certain standard Apple IIGs or AppleShare file server tasks that are required for setup are not duplicated here; instead, you'll be referred to the appropriate user manual that came with the computer or with the AppleShare File Server software.

If your computer is part of an existing network at your school or office, there may be a **network administrator** who maintains the network. Typical duties of the network administrator include making the physical connections between devices on the network; setting up and maintaining any file servers and print servers on the network; troubleshooting whenever network users encounter problems; and answering questions about network services.

If you're a teacher or employee who is not in charge of setting up and maintaining your network but who is responsible for updating new versions of networking software, you should still find the procedures in this manual easy to follow.

If some procedures in this guide require decisions that you can't make regarding the network, or if you don't have all the networking information that you need, see your network administrator.

Related books and manuals

The following manuals from Apple Computer, Inc. provide additional information about the Apple IIGs, the AppleTalk network system, and AppleShare File Server software.

- Apple IIGS System Software User's Guide, which came with this guide, is a reference guide for Apple IIGS system software version 5.0. It replaces the Apple IIGS System Disk User's Guide and (for system software version 4.0) the Apple IIGS System Tools guide.
- The LocalTalk Cable System Owner's Guide provides guidelines and instructions for planning, setting up, and maintaining the physical connections between network devices on an AppleTalk network system with LocalTalk cables.
- The AppleShare File Server Administrator's Guide explains how to set up and maintain a Macintosh® computer (with AppleShare File Server software and one or more hard disks) as an AppleShare file server.
- The AppleShare File Server Administrator's Supplement for Apple II Workstations explains special procedures you need to follow in order to give Apple® II computers access to an AppleShare file server. When the administrator's supplement makes reference to the AppleShare IIGS User's Guide, you should refer to this guide (the AppleTalk Network User's Guide for the Apple IIGS) instead.
- The AppleShare Print Server Administrator's Guide explains how to set up and maintain a Macintosh computer (with AppleShare Print Server software and one or more hard disks) as an AppleShare print server. (You can use a single Macintosh computer as a file server and a print server.)
- The Aristotle Administrator's Guide explains how to set up the Aristotle menu software on an AppleShare file server. (Aristotle is special software, designed for classroom use, that lets teachers determine which applications are available when students log on to a file server.)

- If your computer uses ROM version 01, the *Apple IIGS Owner's Guide* is the manual that describes the hardware features of the Apple IIGS computer, including the Control Panel.
- If your computer uses a ROM version newer than version 01, the *Getting Started With Your Apple IIGS* provides setup instructions and a hands-on tutorial for using the Apple IIGS.
- If your computer uses a ROM version newer than version 01, the *Apple IIGS Owner's Reference* describes the hardware features of the Apple IIGs and the software features of Apple IIGs system software version 5.0. All the software information in this manual is also provided in the *Apple IIGs System Software User's Guide*.

C H A P T E R

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Introduction to Networking With the Apple IIGS

HIS CHAPTER INTRODUCES THE CAPABILITIES AVAILABLE TO YOU WHEN YOUR Apple IIGs® computer is part of a network.

The first section of this chapter gives an overview of the AppleTalk® network system, explaining basic concepts and vocabulary that can help you use an AppleTalk network effectively. The second and third sections describe the AppleShare® file server and print server, and explain the basic procedures for accessing and using a server. The fourth section describes what you need to get started.

The AppleTalk network system

The Apple IIGs is designed to be part of the **AppleTalk network system**, which can include other types of personal computers, such as the Apple IIe, any of the Macintosh® family of computers, and MS-DOS computers.

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The AppleTalk network system can also include peripheral devices such as LaserWriter[®] and ImageWriter[®] printers. To connect devices to an AppleTalk network system, you use one or more LocalTalk™ Locking Connector Kits, which include all the cables and connectors necessary to link devices to the network.

The AppleTalk network system includes a number of **network types**, such as LocalTalk and EtherTalk™. All AppleTalk network types use the same AppleTalk **protocols**, or rules for exchanging information, which are built into the Apple IIGs computer, the Macintosh computer, and the LaserWriter printer. These protocols can be added (with special interface cards) to the Apple® IIe computer, the ImageWriter printer, and MS-DOS compatible computers. When it functions as part of a network, a personal computer is called a **workstation**. Regardless of the network type that a workstation uses, it can access the services of the AppleTalk network system transparently.

The various network types can be pulled together into a single, larger system called an **internet**. Networks (including your network) within the internet can be grouped together into **zones**. Subdividing a large internet into zones makes access to network devices and services more convenient.

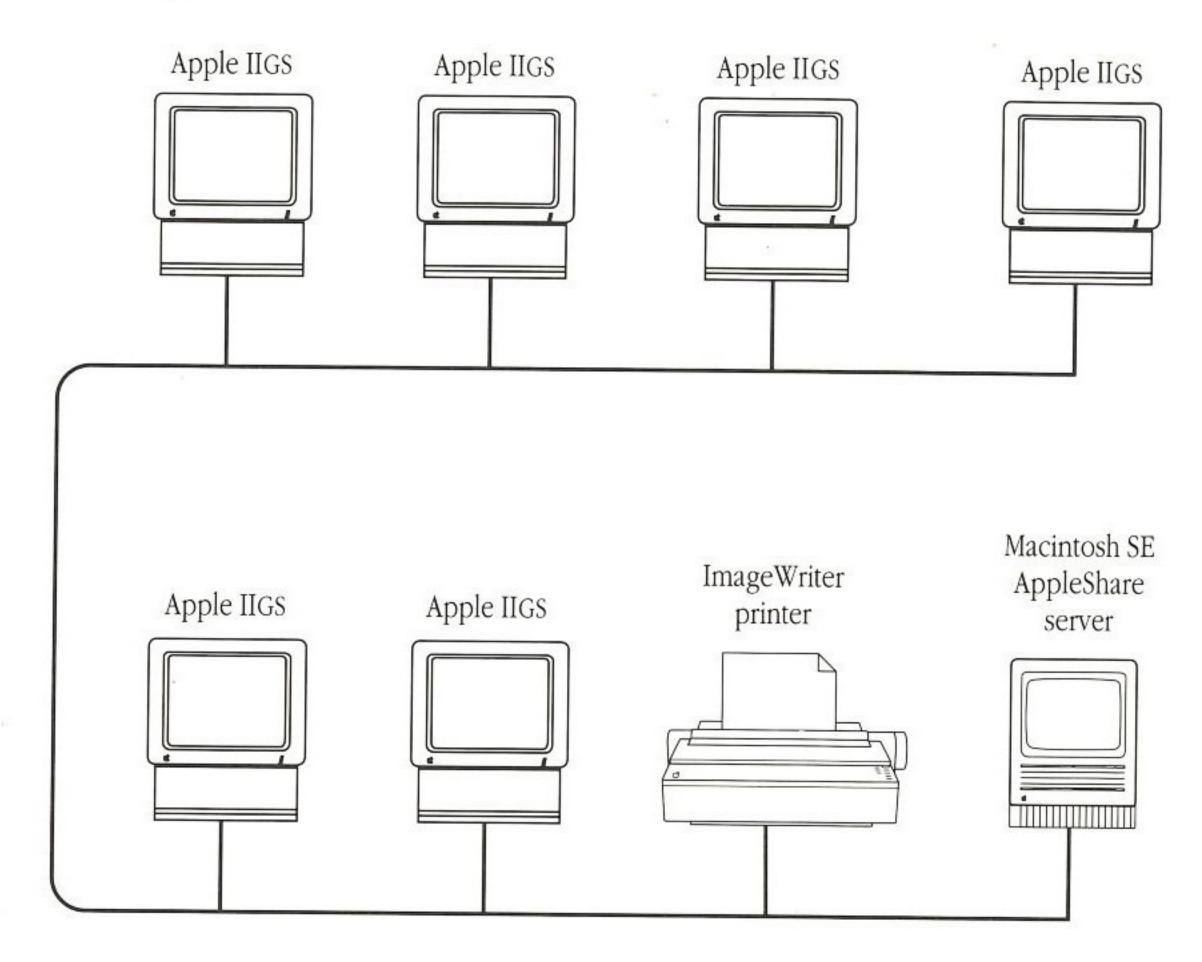
The advantages of networking

When your computer is part of an AppleTalk network system, you can share peripheral devices such as printers, thus eliminating the need for an individual printer for each user, or for carrying a disk to a workstation that has a dedicated printer.

In addition, an AppleTalk network system can include **AppleShare print servers**—specially configured Macintosh computers that store documents waiting to be printed, thus allowing several people to print documents at the same time. You'll learn more about using AppleShare print servers in Chapter 4.

Finally, members of an AppleTalk network system can share applications and exchange mail, documents, and other information electronically by using **AppleShare file servers**—specially configured Macintosh computers that allow network users to store and share information. See Figure 1-1. (A single Macintosh computer can be used as both a print server and a file server.) You'll learn more about using AppleShare file servers in Chapter 3.

■ Figure 1-1 Configuration of Apple IIGs computers, an ImageWriter printer, and an AppleShare file server



Here are a few examples of ways you might use an AppleShare file server:

- Read or post messages in a departmental or class "bulletin board" folder.
- Keep frequently used forms (such as expense reports, travel advance requests, and payroll documents) in a folder from which employees can copy as needed.
- Use private folders on the file server's hard disk so that only you (and, if you wish, others in a group that you designate) have access to the documents in those folders.

- Easily maintain documents that change frequently (such as student rosters, company address lists, and databases about clients) so that you no longer need to issue paper updates to the people who need the most current version of the information.
- Share public-domain software with other network users (or copyrighted software, if the copyright statement or a special license allows multiple use).

You'll learn about setting up AppleShare file servers in Chapter 2 and about using them in Chapter 3.

An overview of AppleShare file servers

An AppleShare file server includes a Macintosh computer with one or more hard disk drives that let you store large amounts of information. AppleShare is a set of **network services** that gives you access to resources on an AppleTalk network system. AppleShare file servers provide storage and sharing of applications and data files for AppleTalk network system users.

File server volumes

Each hard disk that's part of a file server is known as a **volume**. File server volumes function in much the same way as any other kind of disk. When contrasted to file server volumes, other disks are sometimes called **local disks** because you use them in a disk drive connected directly to your computer.

When you select a file server volume, its icon appears on your desktop. You can open the icon just as you would open any other disk icon, and you can use the file server volume the same way you use other disks—creating folders, opening applications, saving documents, and so on. An added benefit of file server volumes is that more than one network user can have access to them at the same time.

* CD-ROM volumes and other locked volumes: Your file server may include locked volumes, such as CD-ROMs, whose contents can't be changed. A locked volume functions much the same as a write-protected 3.5-inch or 5.25-inch disk. You can't create folders or save documents on a locked volume because you can't alter its contents.

Logging on

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When you want access to one or more file server volumes, you go through a process called **logging on.** You can log on to a file server in three ways:

- With an AppleShare startup disk that includes the Finder™. You create such a disk by installing either the AppleShare update or the AppleShare on 3.5 Disk update. When you start up with the disk, the Finder is your startup application. You can then use the graphic Control Panel to log on to a file server and select file server volumes, as explained in "Logging On to a File Server From the Control Panel" in Chapter 3.
- With an AppleShare startup disk that doesn't include the Finder. You create such a disk by installing the Local Network Startup update. When you start up with the disk, you bypass the Finder, logging on to a file server and launching whatever startup application the network administrator has assigned to you.
- This method of starting up is useful primarily in classroom settings, where a teacher may want to have control over the application with which a student starts up. This method of logging on is explained in "Logging On With a Disk That Doesn't Include the Finder" in Chapter 3.
- Directly over the network (without a disk). You can start up in this manner if you've installed the Server Network Startup update on the startup volume of the file server. When you switch on the computer, you automatically log on to a file server and launch whatever startup application the network administrator has assigned to you.

This method of starting up is useful primarily in classroom settings, where a teacher may want to have control over the application with which a student starts up. The advantage of this method is that it doesn't require a disk drive; the disadvantage is that it can take somewhat longer than starting up with an AppleShare disk that doesn't include the Finder. This method of logging on is explained in "Starting Up Over the Network" in Chapter 3.

When you're finished using the volumes on a file server, you go through a process called **logging off**, as explained in "Logging Off a File Server" in Chapter 3.

Registered users and guests

A file server is like a central storeroom for files. Because you may want some files or folders to be private—or to be available only to a specific group of network users—the AppleShare File Server software provides a "security system" to make sure that only the appropriate people have access to information stored on file server volumes.

When the network administrator set up your file server, he or she probably created a list of **registered users.** If you're a registered user of a file server, your administrator has assigned you a **user name** and a **password.** When you log on as a registered user, your user name identifies you to the file server, and your password (a unique word or set of characters that no one else knows) lets you confirm that you're who you say you are.

Your file server administrator may also have set up **groups** of one or more registered users. The members of an AppleShare group usually need access to the same information. For example, teachers may need to share information among themselves but restrict that information from students.

Even if you're not a registered user of a file server, you can log on as a **guest**, unless the file server has been set up to allow access only to registered users. Guests are given the user name **Any User**> but do not have a password. When you log on as a guest, you don't have access to restricted information, but you can use public files and folders. Anything you create or store on a file server volume while logged on as a guest is available to all network users, including other guests.

Access privileges

The AppleShare File Server software has a feature called **access privileges** to let users restrict access to information in particular folders. When a registered user creates a folder on a file server volume, the folder is automatically set up as a private folder. The registered user is the **owner** of the folder, and he or she controls the access to its contents. Only the registered user can see or change what's in the folder unless he or she gives other users access to it.

You'll probably store some private information on a file server—for example, payroll or personnel records, students' grades, and so on. But you may also store information that you want to share, either with certain users on the network or with everyone on the network. Access privileges let you set up different restrictions for different folders.

For an explanation of the different access privileges and how to use them, see "Setting Access Privileges for a Folder" in Chapter 3.

AppleShare-aware applications

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An application program is **AppleShare-aware** if it can be used safely with an AppleShare file server. With an AppleShare-aware application, a user should be able to launch the application from the file server. In addition, a user may be able to store documents on the file server so that several persons can simultaneously access those documents, without inadvertently destroying each other's work.

In addition to being AppleShare aware, each application falls into one of four categories:

- single-user/single-launch
- single-user/multi-launch
- multi-user/single-launch
- multi-user/multi-launch

If you want to share applications on an AppleShare file server, it's best to use single-user/multi-launch applications.

If you aren't sure whether an application is AppleShare-aware, see the manual that came with the application.

Naming rules

AppleShare file servers use a file system different from the ProDOS® file system used on hard disks, 3.5-inch disks, and 5.25-inch disks. The AppleShare file system allows you more flexibility in naming icons on the desktop. The following rules apply when you name files and folders on a file server volume:

- The name can have no more than 31 characters.
- You can't use a colon (:) in the name.

Similarly, if you move an item from a file server volume to a local disk, the item must have an acceptable ProDOS name.

If you'll be sharing items with Apple IIe users on the network, however, you should follow the ProDOS naming restrictions described in "To Rename Icons" in Chapter 1 of the *Apple IIGS System Software User's Guide*. When you drag an item from a file server volume to a local disk, you may see a dialog box informing you that the item's name is unacceptable and suggesting a new name.

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What you need to get started

If your network already includes an AppleShare file server, you only need to install software on the file server and on your Apple IIGS startup disks to begin working with network services.

If your Apple IIGs isn't connected to a network, or if you want to connect to your network, see the *LocalTalk Cable System Owner's Guide* or the *AppleShare File Server Administrator's Guide*.

Your product package

The Apple IIGS System Software Update version 5.0 contains the following items:

- Apple IIGS System Disk
- Apple IIGS System Tools disk
- Apple II Setup disk
- Apple IIGS System Software User's Guide
- AppleTalk Network User's Guide (this guide)

Other requirements

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The preliminary set-up information in Chapter 2 refers to AppleShare file server disks that you must have available. The disk you need depends on the setup procedures that you'll be following.

If you're creating 3.5-inch network startup disks, you'll need the disks that came with the Apple IIGS System Software Update Version 5.0, as well as a blank disk for each network user. In addition, if you'll be using your Apple IIGS with an AppleShare file server, you must have the following disks:

- Apple II Setup
- AppleShare File Server: Server Administration (this disk came with your AppleShare product package)

Setting Up

Apple IIGS users access to AppleShare file servers on an AppleTalk network system. If your network doesn't have AppleShare file servers, use the first part of this section to connect to the AppleTalk network system with LocalTalk cable. If your network doesn't have AppleShare file servers and your computer is already connected to the network with LocalTalk cable, you may skip this chapter.

△ Importan

Some of the procedures in this section are similar to procedures described in the *AppleShare File Server Administrator's Supplement for Apple II*Workstations, but there are some important differences. Even if a procedure seems to repeat something you did when you originally set up your file server, do not skip any of the procedures in this section.

Connecting an Apple IIGs to an AppleTalk network system with LocalTalk cable

Unless your network administrator has already connected your Apple IIGs to the network, you'll need a LocalTalk Locking Connector Kit with an 8-pin (DIN-8) connector. Ask the administrator or your authorized Apple dealer for the appropriate kit.

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This procedure summarizes information in the *LocalTalk Cable System Owner's Guide*. If you've never made any network connections—and especially if you're setting up a network for the first time—you should refer to that guide's more complete instructions.

Follow these steps to connect an Apple IIGs to a LocalTalk network:

- 1. Switch off the Apple IIGS, but leave its power cord plugged in.

 Leaving the power cord plugged in keeps the computer grounded.
- 2. Attach the LocalTalk connector box to the LocalTalk network.

 The particular steps you follow to attach a connector box to the network depend on whether you're attaching it at the end of the network or between two existing network devices. For specific information, see Chapter 4 of the LocalTalk Cable System Owner's Guide.

When you unplug any LocalTalk cables on an existing network, be sure to pull on the plug, not the cord. (LocalTalk cables are equipped with special locking connectors that won't allow you to unplug the cable by pulling the cord.)

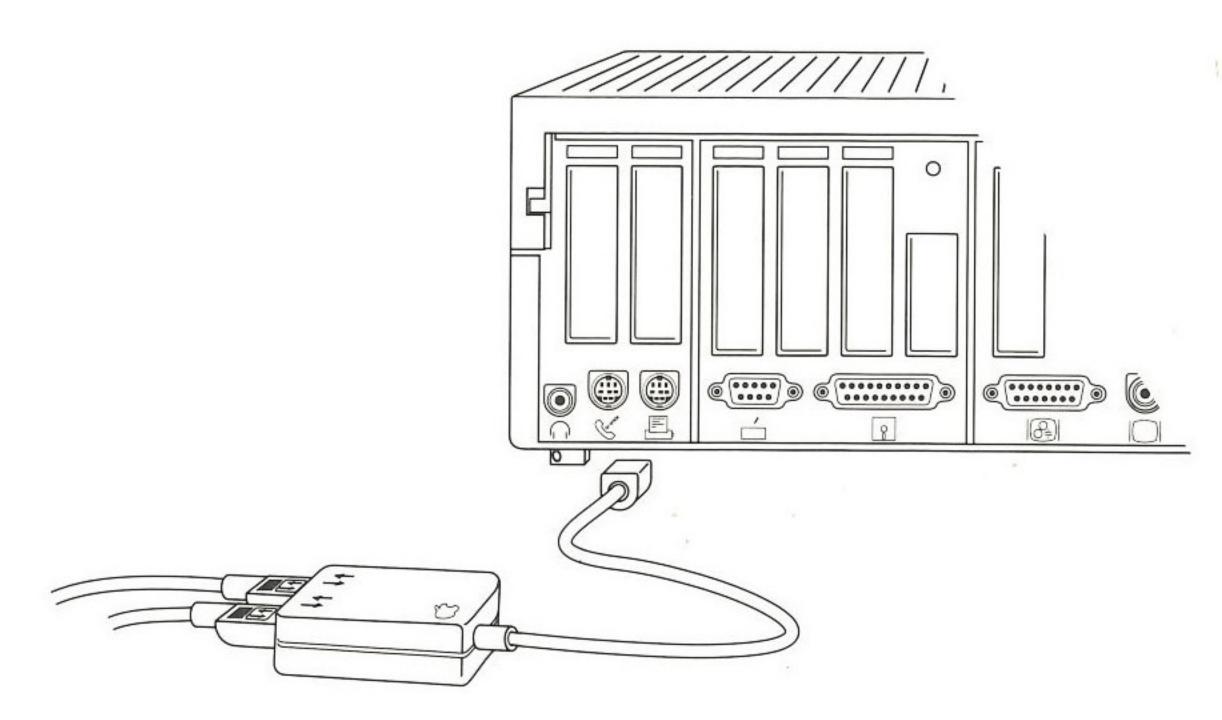
△ Important

Keep in mind that unplugging a LocalTalk cable on an existing network interrupts communication on the network. Before you unplug any cables, warn other network users that network use may be interrupted briefly, and try to work as quickly as possible to minimize the interruption. △

3. Plug the LocalTalk connector box cable into the printer port on the back panel of the Apple IIGs.

Insert the 8-pin connector, flat side up, into the printer port. See Figure 2-1.

■ Figure 2-1 Connecting the LocalTalk connector box cable to the printer port



Special case: If you've connected a printer directly to the printer port, plug the LocalTalk connector box cable into the modem port on the back panel of the Apple IIGs. If you've already connected a modem to the modem port, you must disconnect it before you connect to the network, or contact your administrator.

Preparing an AppleShare file server for Apple IIGs access

This section assumes that your network already includes an AppleShare file server with AppleShare File Server software version 2.0 (or a later version). If it doesn't, refer to the *AppleShare File Server Administrator's Guide* for instructions on setting up a file server.

Note: All AppleShare file servers that support Apple IIGs workstations must be updated at the same time.

Once your file server is set up, you need to follow some additional steps to give Apple IIGS workstations access to file server volumes. Even if you have followed these steps earlier, you need to repeat this procedure with the *Apple II Setup* disk included with this guide. (The setup disk you received with your AppleShare File Server software—or with the AppleShare IIGS workstation software—is an older version.)

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Use the following procedure to install Apple II software support on an AppleShare file server. (You'll also need the disks that came with your AppleShare File Server software, and you'll need to know the adminstrator's password and the Admin key.)

These instructions are in streamlined form and assume a familiarity with the AppleShare File Server software. If you aren't familiar with that software, you may want to refer to the *AppleShare File Server Administrator's Guide* for background information and for a full explanation of the interface that you'll see while you perform the following procedure:

- 1. If necessary, shut down the Macintosh computer that functions as a file server.
- 2. Insert the Apple II Setup disk in a disk drive connected to the Macintosh.
- 3. Restart the Macintosh.
- 4. Open the AppleShare Apple II Setup disk icon.
- 5. Open the Installer icon.
- 6. If necessary, click the Drive button in the dialog box until the name of the file server's startup volume appears at the upper right.
- 7. Click AppleShare Apple II to select it.
- 8. Click Install.
- 9. When the installation is complete, click Quit.
- 10. Shut down the Macintosh and remove the Apple II Setup disk.
- 11. Insert the *AppleShare File Server: Server Administration* disk in a disk drive connected to the Macintosh.
- 12. Restart the Macintosh.
- 13. Open the AppleShare Administration disk icon.
- 14. Open the AppleShare Admin application.
- 15. Type the Admin key and click OK.

- 16. Choose Server Info from the Server menu.
- 17. Make sure that the Apple II Admin check box has an X in it.

 If the file server has previously been set up for Apple II users, the check box probably has an X in it. If it does, skip this step and step 18.

 If this is the first time the file server is being set up for Apple II users, the check box should be empty. Click the check box to add an X.
- 18. Click Save.
- 19. Click OK in the dialog box.
- 20. Choose File & Folder Info from the Folders menu.
- 21. If necessary, click the Volume button until the directory of the startup volume of the file server is displayed.
- 22. Select the folder named *System* on the startup volume.
- 23. Click Get Info.
- 24. If necessary, give the administrator the Make Changes privilege for the System folder on the file server's startup volume.

 If the administrator already has the Make Changes privilege, skip this step.
- 25. Choose Quit from the File menu.
- 26. Shut down the Macintosh.
- 27. Remove the Server Administration disk and restart the Macintosh.

Installing updates that allow users to start up over the network

If you want Apple IIGS users to start up remotely from the AppleShare file server, you must install some updates on the startup volume of the file server. (If you aren't sure whether you want users to start up over the network, see "Logging On" in Chapter 1 for an explanation of the three ways a user can log on.)

Important In order for network users to start up over the network, you must provide a startup application on the startup volume of the file server, and the access privileges for the folders and volume containing that application must be set so that users have access to the application. For instructions, see "Copying Apple II Applications to an AppleShare File Server" later in this chapter and "Setting Access Privileges for a Folder" in Chapter 3.

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In addition, either the administrator or the network user must set the startup slot of the Apple IIGs workstation to Slot 7 (for a computer with ROM version 01), or to AppleTalk (in a computer with a newer ROM version). For instructions, see "Configuring Your Slots for Networking" later in this chapter. \triangle

You perform the following procedure at an Apple IIGs workstation on the network. If you haven't yet connected any Apple IIGs computers to the network, read "Connecting an Apple IIGs to an AppleTalk Network System With LocalTalk Cable" earlier in this chapter, or refer to the LocalTalk Cable System Owner's Guide for instructions.

These instructions are in streamlined form and assume a familiarity with the Installer program on the Apple IIGS System Tools disk. If you've never used the Installer, refer to Chapter 5 of the Apple IIGS System Software User's Guide for background information and for a full explanation of the interface you'll see while performing the following procedure.

These instructions also assume that you're installing from an Apple IIGS system with at least two 3.5-inch disk drives. If that isn't possible, you'll need to swap disks very frequently during the installation process.

Follow these steps to install the appropriate networking updates on your file server:

- 1. Start up the Apple IIGs with a backup copy of the Apple IIGS System Disk
- 2. Initialize a blank disk.

For instructions, see "To Initialize a Disk" in Chapter 2 of the Apple IIGS System Software User's Guide.

When you're asked to name the disk, you may want to give it a name such as AppleShare.

- 3. Insert the Apple IIGS System Tools disk in an empty disk drive. You may have to eject the system disk in order to insert the system tools disk.
- Open the System. Tools icon.
- 5. Open the Installer application icon.
- 6. Click the Disk button until the name of the disk you just initialized appears above the window on the right side of the Installer screen. If the blank disk is not in a disk drive, its name won't appear above the window on the right. Insert the disk and click the Disk button until the name appears.
- 7. Select AppleShare on 3.5 Disk in the list of updates in the window on the left side of the Installer screen.
- 8. Click Install.

You'll see a dialog box warning you that this update will make the disk on which you're installing into an AppleShare startup disk, removing some files (including support for printers). Because you're installing on a blank disk, you needn't be concerned by this warning.

- 9. Click Perform This Update.
- 10. When you see a dialog box indicating that the installation was successful, click OK.
- 11. Quit the Installer.
- 12. Restart the Apple IIGs with the disk on which you just installed the AppleShare on 3.5 Disk update.

During the restarting process, the computer will prompt you with a message asking you to provide your user name.

13. Type the administrator's name.

If you make a mistake, use the Delete key and retype. When the name is correct, press Return. Your user name is stored on the startup disk, so you won't need to enter it again when using this disk to start up the computer.

14. Choose Control Panel from the Apple menu.

The AppleShare icon should be selected in the column on the left.

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- 15. Log on to the file server (using the network administrator's user name and password) and select the startup volume.
 - For instructions, see "Logging On to a File Server From the Control Panel" in Chapter 3.
- 16. Insert the Apple IIGS System Tools disk in an empty disk drive.
- 17. Open the System. Tools icon.
- 18. Open the Installer application icon.
- 19. Click the Disk button until the name of the file server's startup volume appears above the window on the right side of the Installer screen.
- 20. Select Server Network Startup and Server Quick Logoff in the list of updates in the window on the left side of the Installer screen.

To select more than one update, hold down the Command key as you click each update name.

- About Server Quick Logoff: The Server Quick Logoff installation is optional. This program allows you to switch between network users with minimum interaction between the user and the computer. When this program is installed, the user is automatically logged off when he or she quits the startup application, and a logon program allows the next user to log on.
- 21. Click Install.

You'll see a dialog box warning you that this update should be installed only on the startup volume of a file server.

- 22. Click Perform This Update.
- 23. When you see a dialog box indicating that the installation was successful, click OK.
- 24. Quit the Installer.
- 25. Make sure to assign the See Files and See Folders privileges for the System Folder on the startup volume (and all enclosed folders) to Everyone.

For instructions, see "Setting Access Privileges for a Folder" in Chapter 3.

26. Drag the icon of the file server volume to the Trash to log off the file server.

Creating 3.5-inch network startup disks that don't include the Finder

If you want Apple IIGs users to log on to a file server with a 3.5-inch AppleShare startup disk that doesn't include the Finder, you must create the appropriate startup disk.

Users logging on with a disk that doesn't include the Finder will use a program called Logon rather than the graphic Control Panel. If you aren't sure whether you want users to log on in this manner, see "Logging On" in Chapter 1 for an explanation of the three ways a user can log on.

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Important For network users to start up over the network, you must provide a startup application on the startup volume of the file server, and the access privileges for the folders and volume containing that application must be set to allow users to have access to the application. For instructions, see "Copying Apple II Applications to an AppleShare File Server" later in this chapter and "Setting Access Privileges for a Folder" in Chapter 3. \triangle

> You perform the following procedure at an Apple IIGs workstation on the network. If you haven't yet connected any Apple IIGs computers to the network, read "Connecting an Apple IIGs to an AppleTalk Network System With LocalTalk Cable" earlier in this chapter, or refer to the LocalTalk Cable System Owner's Guide for instructions.

These instructions are in streamlined form and assume a familiarity with the Installer program on the Apple IIGS System Tools disk. If you've never used the Installer, refer to Chapter 5 of the Apple IIGS System Software User's Guide for background information and for a full explanation of the interface you'll see while performing the following procedure.

These instructions also assume that you're installing from an Apple IIGS system with at least two 3.5-inch disk drives. If that isn't possible, you'll need to swap disks very frequently during the installation process.

Follow these steps to install the appropriate networking updates on your file server:

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- Start up the Apple IIGs with a backup copy of the Apple IIGs System Disk.
- 2. Initialize a blank disk.

For instructions, see "To Initialize a Disk" in Chapter 2 of the Apple IIGS System Software User's Guide.

When you're asked to name the disk, you may want to give it a name such as Startup.

- 3. Insert the Apple IIGS System Tools disk in an empty disk drive. You may have to eject the system disk in order to insert the system tools disk.
- 4. Open the System. Tools icon.
- 5. Open the Installer application icon.
- 6. Click the Disk button until the name of the disk you just initialized appears above the window on the right side of the Installer screen. If the blank disk is not in a disk drive, its name won't appear above the window on the right. Insert the disk and click the Disk button until the name appears.
- 7. Select Local Network Startup and Server Quick Logoff in the list of updates in the window on the left side of the Installer screen.

To select more than one update, hold down the Command key as you click each update name.

- * About Server Quick Logoff: The Server Quick Logoff installation is optional. This program allows you to switch between network users with minimum interaction between the user and the computer. When this program is installed, the user is automatically logged off when he or she quits the startup application, and a logon program allows the next user to log on.
- 8. Click Install.

You'll see a dialog box warning you that this update will remove files such as the Finder from the disk on which you're installing. Because you're installing on a blank disk, you needn't be concerned by this warning.

- 9. Click Perform This Update.
- 10. When you see a dialog box indicating that the installation was successful, click OK.
- 11. Quit the Installer.
- 12. Use the Finder to make a copy of the startup disk for each workstation where you want users to log on with a disk that doesn't include Finder. For instructions, see "To Copy a Disk" in Chapter 2 of the Apple IIGS System Software User's Guide.

Copying Apple II applications to an AppleShare file server

You copy Apple II applications to a file server volume in the same way that you copy other items. For instructions, see "To Place Copies of Items on a Different Disk" in Chapter 3 of the Apple IIGS System Software User's Guide. Network users who start up with a Finder-based AppleShare startup disk are free to open any application to which they have access on the file server. For these users, you can store applications in any folder with the appropriate access privileges.

Make sure that the applications you copy to the file server are AppleShareaware applications—that is, applications designed specifically to work on an AppleShare file server. If they aren't, there may be restrictions on how you can use the applications on a network. If you aren't sure whether a particular application is AppleShare-aware, check with the software publisher or with your authorized Apple dealer.

Make sure to set the access privileges for the volume and any folders containing applications so that the appropriate users will have access to the applications. For instructions, see "Setting Access Privileges for a Folder" in Chapter 3.

Important Before you copy any copyrighted applications to a file server volume, be sure to obtain the appropriate license from the manufacturer. Sharing applications on a file server without express permission is a violation of copyright law. \triangle

When you copy setup files or desk accessories that will be used by those who don't start up with a Finder-based disk, follow these guidelines in deciding where on the file server to store the applications:

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- If a setup file is to be shared by everyone, copy it into the folder called System. Setup, which is inside the folder called System on the startup volume of the file server.
- If a desk accessory is to be shared by everyone, copy it into the folder called Desk.Accs, which is inside the folder called *System* on the startup volume of the file server.
- If a setup file or a desk accessory is to be used only by an individual user, copy it into the folder called Setup inside the individual's folder, which is inside a folder called Users on the startup volume of the file server.

If network users will start up over the network, or with an AppleShare startup disk that doesn't include the Finder, you also need to use the AppleShare Admin program to set startup applications for individual users, as explained in the AppleShare File Server Administrator's Supplement for Apple II Workstations.

Updating the Aristotle menu software

If your AppleShare file server uses the Aristotle™ menu software, you'll want to follow the procedure in this section to install the Aristotle update, which allows a student using the Aristotle menu software to log on after another student has logged off without the computer's having to reload all the startup and System files.

△ Important

These instructions assume that you have already installed Aristotle on the startup volume of the file server. If you haven't, install Aristotle according to the instructions in the *Aristotle Adminstrator's Guide* before you install the Aristotle update. \triangle

You perform the following procedure at an Apple IIGS workstation on the network. If you haven't yet connected any Apple IIGS computers to the network, read "Connecting an Apple IIGS to an AppleTalk Network System With LocalTalk Cable" earlier in this chapter, or refer to the *LocalTalk Cable System Owner's Guide* for instructions.

These instructions are in streamlined form and assume a familiarity with the Installer program on the *Apple IIGS System Tools* disk. If you've never used the Installer, refer to Chapter 5 of the *Apple IIGS System Software User's Guide* for background information and for a full explanation of the interface you'll see while performing the following procedure.

Follow these steps to install the Aristotle update on your file server:

- 1. Start up the Apple IIGS with an AppleShare startup disk.

 If you haven't yet created an AppleShare startup disk, follow the steps in "Installing the Appropriate Networking Updates" later in this chapter.
- Log on to the startup volume of the file server.
 For instructions, see "Logging on to a File Server From the Control Panel" in Chapter 3.
- 3. Insert the Apple IIGS System Tools disk in an empty disk drive.
- 4. Open the System. Tools icon.
- 5. Open the Installer application icon.
- 6. Click the Disk button until the name of the file server volume that contains the Aristotle Menu Display program appears above the window on the right side of the Installer screen.
- 7. In the window on the right, open any necessary folders until you reach the folder that contains the Aristotle Menu Display program.
 - To open a folder, click its name to highlight it and then click the Open button. Or just double-click the folder name.
 - Continue opening folders until the directory of the folder containing the Aristotle Menu Display program appears in the window. You should see the dimmed filename *display.*Ø.
- 8. Select Aristotle Update in the list of updates in the window on the left side of the Installer screen.
- 9. Click Install.

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10. When you see a dialog box indicating that the installation was successful, click OK.

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11. Quit the Installer.

Configuring your slots for networking

Before you can use your Apple IIGS on a network, you must make a few changes to the Slots options in the Control Panel. Follow these steps:

- 1. Insert any Finder-based startup disk in the startup drive of your Apple IIGS.
- The startup disk must include system software version 5.0 (or a later version).
- 2. Switch on your Apple IIGS.

 In a few moments you'll see the Finder desktop.
- 3. Choose Control Panel from the Apple menu.

 The Control Panel desk accessory appears on the desktop.
- 4. Select the Slots icon in the column on the left side of the Control Panel. It may be necessary to scroll through the column until the Slots icon is visible. When the icon is visible, click it to select it. The Slots options appear on the right side of the Control Panel.
- 5. Change the Slot 1 setting to Your Card (for computers with ROM version 01) or to AppleTalk (for computers with a newer ROM version).
- To change the Slot 1 setting, position the pointer on the box to the right of the words *Slot #1*, and then hold down the mouse button. A pop-up menu appears listing the two possible settings for Slot 1. If connecting the network to the printer port, set Slot 1 to Your Card. Drag through the list until the correct setting is highlighted, and then release the mouse button.
- Special case: If you connected the LocalTalk connector box cable to the modem port instead of the printer port, make the appropriate setting for Slot 2 instead of Slot 1.

- 6. Change the Slot 7 setting to built-in AppleTalk (for computers with ROM version 01) or to AppleTalk (for computers with a newer ROM version).
- This setting is required for computers with ROM version 01 and recommended for computers with a newer ROM version.
- To change the Slot 7 setting, position the pointer on the box to the right of the words *Slot #7*, hold down the mouse button, and drag through the list until the correct setting is highlighted. Then release the mouse button.
- 7. If you want to start up directly from a file server (rather than from a startup disk in a disk drive), set the startup slot to Slot 7 (for computers with ROM version 01) or to AppleTalk (for computers with a newer ROM version).

To change the startup slot setting, position the pointer on the box to the right of the word *Startup*, hold down the mouse button, and drag through the list until the correct setting is highlighted. Then release the mouse button.

Check with your network administrator before setting your computer to start up directly from a file server. For more information, see "Logging On" in Chapter 1 and "Starting Up Over the Network" in Chapter 3.

- 8. Close the Control Panel.
 - Click the close box in the upper-left corner to close the Control Panel.
- 9. Restart your Apple IIGs.

The new slot settings don't take effect until you restart the computer.

To restart, choose Shut Down from the Special menu of the Finder, click the Restart button, and then click OK. Your 3.5-inch disk drives will eject any disks you've inserted. Reinsert your startup disk in the startup drive.

In a few moments you'll return to the Finder desktop. (Or, if you set the startup slot to Slot 7 or AppleTalk in step 7, you'll start up over the network with whatever application the network administrator has assigned as your startup application.) The new slot settings are in effect.

Installing the appropriate networking updates

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In order to have access to network devices and services from a startup disk, you need to use the Installer to install the appropriate updates on your startup disks. The procedure you follow depends on whether the startup disk is a 3.5-inch disk or a hard disk.

Creating a 3.5-inch networking startup disk

Space restrictions: Because of space constraints, you won't be able to install all four networking updates on a 3.5-inch disk. If you're installing AppleShare, for example, you'll have room for only one network printer update. If your network includes more than one type of printer, create a separate AppleShare startup disk for each type of network printer you plan to use.

You may use only certain of the following steps, depending upon the networking updates you need. (If you're selecting more than one update, hold down the Command key while you select each name.)

AppleShare and LaserWriter: There is not enough room on a 3.5-inch disk for both the AppleShare on 3.5 Disk update and the LaserWriter update. Therefore, to use both AppleShare and a LaserWriter on your network, you must create a LaserWriter startup disk, in addition to an AppleShare startup disk.

Follow these steps to create the necessary 3.5-inch networking startup disks:

- 1. Start up the Apple IIGS with a backup copy of the Apple IIGS System Disk.
- 2. Initialize one blank disk, or two blank disks if you are installing both the AppleShare on 3.5 Disk update and the LaserWriter update.
 - For instructions, see "To Initialize a Disk" in Chapter 2 in the *Apple IIGS* System Software User's Guide.
 - When you're asked to name the disks, name one *AShare.Startup*. Name the other disk *LaserWriter*.
- 3. Insert the Apple IIGS System Tools disk in an empty disk drive.
- 4. Open the System. Tools icon.
- 5. Open the Installer application icon.

- 6. Click the Disk button until the name *AShare.Startup* appears above the window on the right side of the Installer screen.
- If the blank disk is not in a disk drive, its name won't appear above the window on the right. Insert the disk and click the Disk button until the name appears.
- 7. If you want to install both the AppleShare on 3.5 Disk update and the LaserWriter update, insert the LaserWriter disk. If you do not want to use both AppleShare and a LaserWriter, skip ahead to step 12.
- 8. Select AppleShare on 3.5 Disk and click Install. When you see a dialog box that says the installation was successful, click OK.
- 9. Select AppleShare and click Remove (*Note:* do not select AppleShare on 3.5 Disk). When you see a dialog box that says the removal was successful, click OK.
- 10. Select LaserWriter and click Install. When you see a dialog box that says the installation was successful, click OK.
 - ❖ Using the LaserWriter startup disk: You must use this LaserWriter startup disk whenever the LaserWriter printer has been reinitialized or powered on. Start up with this disk on any Apple IIGs computer on the network to perform this installation. From the Control Panel, select the LaserWriter icon, select your LaserWriter, and click the ImageWriter Emulator button.
- 11. Eject the LaserWriter startup disk.
- 12. Insert the disk named AShare. Startup and select AppleShare on 3.5 Disk.
- 13. Select AppleShare ImageWriter if you want to print with an ImageWriter II printer (including one that has been captured by an AppleShare print server) over the network.
- 14. Select AppleTalk ImageWriter LQ if you want to print with an ImageWriter LQ printer (including one that has been captured by an AppleShare print server) over the network.
- 15. Click Install.

This process changes the blank disk into a startup disk. You'll get a warning stating that the installation of this update will make your disk an AppleShare disk, and in the process, some existing files will be removed. Because you're installing on a blank disk, you needn't be concerned about this warning.

- 16. Click Perform This Update.
- 17. When you see a dialog box indicating that the installation was successful, click OK.

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- 18. Quit the Installer.
- 19. Restart the computer with the startup disk that you just created.

 During the restarting process, the computer will prompt you with a message asking you to provide your user name.
- 20. Type your user name.

Be sure to type your user name as it was given to you by the network administrator—though you don't need to worry about matching uppercase and lowercase letters. If you make a mistake, use the Delete key and retype. When the name is correct, press Return. Your user name is stored on the startup disk, so you won't have to enter it again when you use this disk to start up the computer.

In a few moments you'll see the Finder desktop. You now have access to the network devices and services for which you installed updates.

Adding network capability to a startup hard disk

This section assumes that you've already connected your hard disk, installed system software on it, and configured your slots so that your hard disk is your startup drive. If you haven't yet done any of those tasks, refer to the manual that came with your hard disk and to Chapters 5 and 7 of the *Apple IIGs System Software User's Guide*. (Or, if your computer has a newer ROM version, read "To Connect a Hard Disk" in Appendix A of the *Apple IIGs Owner's Reference*).

Follow these steps to add network capability to a startup hard disk:

- 1. Start up the Apple IIGs from your hard disk.
- 2. Insert the Apple IIGS System Tools disk in an empty disk drive.
- 3. Open the System.Tools icon.
- 4. Open the Installer application icon.
- 5. Click the Disk button until the name of your startup hard disk appears above the window on the right side of the Installer screen.

- 6. Select all the network updates you need.
 - □ Select AppleShare if you want to use AppleShare file servers. Do not select AppleShare on 3.5 Disk if you're installing on a hard disk.
 - Select AppleTalk ImageWriter if you want to print with an ImageWriter II printer (including one that has been captured by an AppleShare print server) over the network.
 - Select AppleTalk ImageWriter LQ if you want to print with an ImageWriter LQ printer (including one that has been captured by an AppleShare print server) over the network.
 - Select LaserWriter if you want to print with a LaserWriter printer (including one that has been captured by an AppleShare print server) over the network.
- 7. Click Install.
- 8. When you see a dialog box indicating that the installation was successful, click OK.
- 9. Click Quit.
- 10. You'll see a dialog box telling you that you must restart in order for the new updates to take effect.
- 11. Click Restart System.

During the restarting process, the computer will prompt you with a message asking you to provide your user name.

12. Type your user name.

Be sure to type your user name as it was given to you by the network administrator—though you don't need to worry about matching uppercase and lowercase letters. If you make a mistake, use the Delete key and retype. When the name is correct, press Return. Your user name is stored on the startup disk, so you won't need to enter it again when using this disk to start up the computer.

In a few moments you'll see the Finder desktop. You now have access to the network devices and services for which you installed updates.

Using an AppleShare File Server

F YOUR APPLE IIGS IS PART OF A NETWORK, YOU PROBABLY HAVE ACCESS TO an AppleShare file server—a Macintosh computer that has one or more hard disks used exclusively for storing and sharing information. Because the file server can't be used as a workstation when it's being used as a file server, it's sometimes called a **dedicated** file server.

If your network includes one or more AppleShare file servers, read this chapter for instructions on using the file server.

Logging on to a file server from the Control Panel

Follow these steps to log on to an AppleShare file server from the Control Panel:

- 1. Start up your Apple IIGs with a Finder-based startup disk on which you have installed the AppleShare or AppleShare on 3.5 disk update.
 - For instructions on installing one of the AppleShare updates on a startup disk, see "Installing the Appropriate Networking Updates" in Chapter 2.

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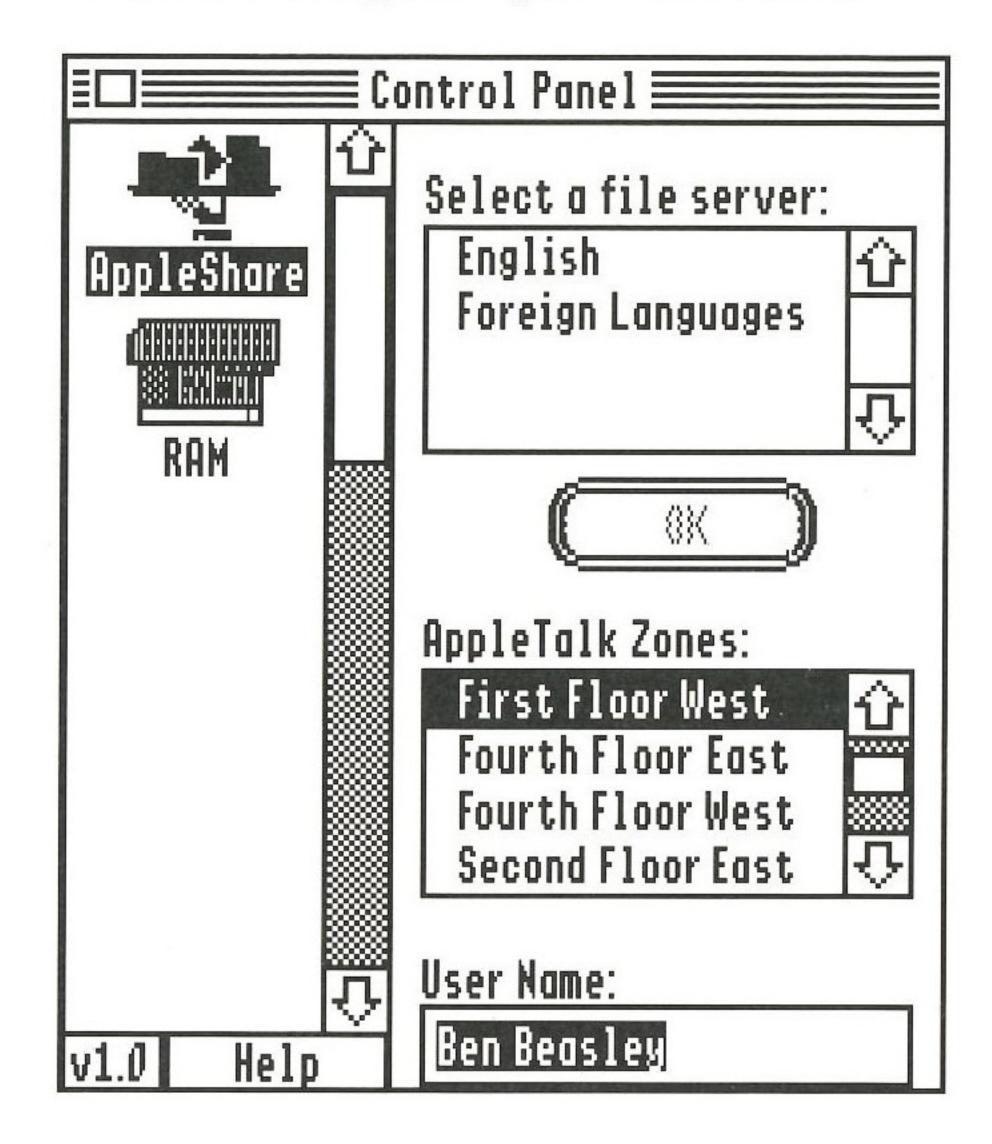
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- 2. Choose Control Panel from the Apple menu.
- 3. Select the AppleShare icon in the column on the left side of the Control Panel.
 - When you select the AppleShare icon, the AppleShare options appear on the right side of the Control Panel. See Figure 3-1. (If you installed AppleShare on a hard disk, you'll see more icons than are displayed here).
- 4. If necessary, select the zone that contains the file server you want to log on to.

If your network isn't divided into zones, or if the desired zone is already selected, skip to step 5.

To select a zone, simply click its name in the AppleTalk Zones window. A list of the file servers in that zone appears in the window labeled "Select a file server."

■ Figure 3-1 The AppleShare options in the Control Panel



- 5. Click the name of a file server in the window labeled "Select a file server."
- 6. Click OK.

You'll see the dialog box in Figure 3-2.

■ Figure 3-2 The dialog box for logging on to a file server

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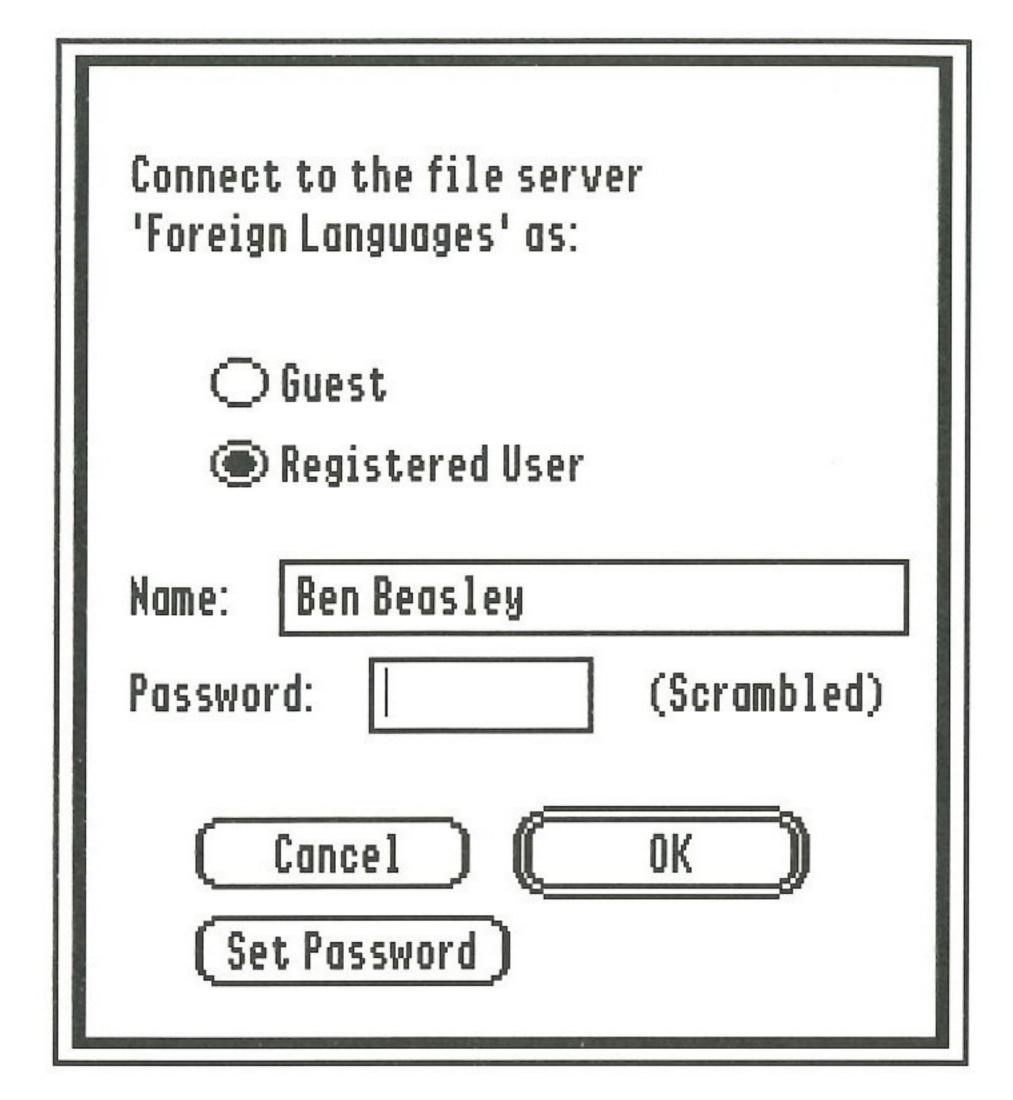
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- 7. Specify whether you want to log on to the file server as a guest or as a registered user.
 - ☐ If you want to log on as a guest, click the Guest button and then click OK.
 - ☐ If you want to log on as a registered user, type your password and then click OK. (If you don't know your password, check with your network administrator.)

Whether you choose to log on as a guest or as a registered user, the dialog box in Figure 3-3 appears on the screen when you click OK.

If you don't have access privileges to a file server volume, its name will be dimmed.

■ **Figure 3-3** The dialog box for selecting file server volumes



- 8. Select the file server volumes to which you want access.

 To select a single file server volume, simply click its name. To select additional file server volumes, hold down the Command key as you click each additional name.
- 9. If you want automatic access to one or more file server volumes each time you start up the computer, click the check box to the right of the volume names. See Figure 3-4.

■ Figure 3-4 Designating file server volumes for automatic access

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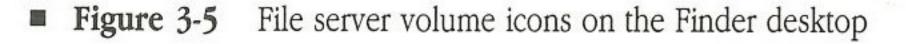
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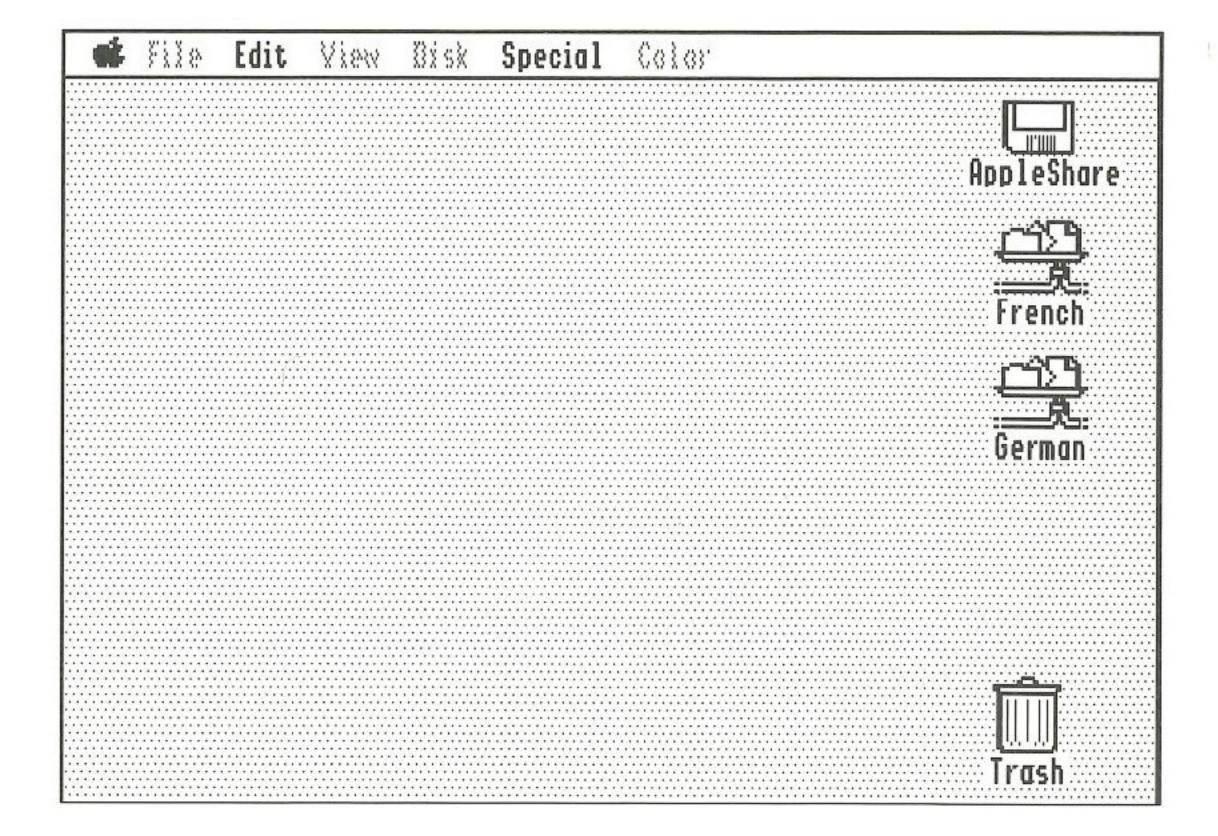


Two new options appear in the dialog box for selecting file server volumes. The Save My Name and Password option is selected.

- ☐ If you want the computer to ask for your password before logging you on to the selected server or servers each time you start up, select the Save My Name Only option.
- ☐ If you want the computer to bypass asking for your password when it logs you on to the selected server or servers each time you start up, leave the Save My Name and Password option selected.
- 10. Click OK or press Return.

The dialog box disappears and you return to the Control Panel. Close the Control Panel. Note that the icon of each file server volume you selected now appears on the desktop, as shown in Figure 3-5.





Starting up over the network

The main advantage of starting up over the network is that you don't need a disk drive. Your network administrator has stored all the necessary software on the file server to let you start up and use your Apple IIGS.

Before you start up over the network, you need to make sure your startup slot is set to Slot 7 (for computers with ROM version 01) or to AppleTalk (for computers with a newer ROM version). For instructions, see "Configuring Your Slots for Networking" in Chapter 2. You should also check with the network administrator to make sure that he or she has installed the necessary software on the file server and has given you the appropriate access privileges.

Follow these steps to start up over the network:

1. Start up (or restart) the computer.

You'll see a series of messages indicating that the computer is starting up over the network and looking for file servers.

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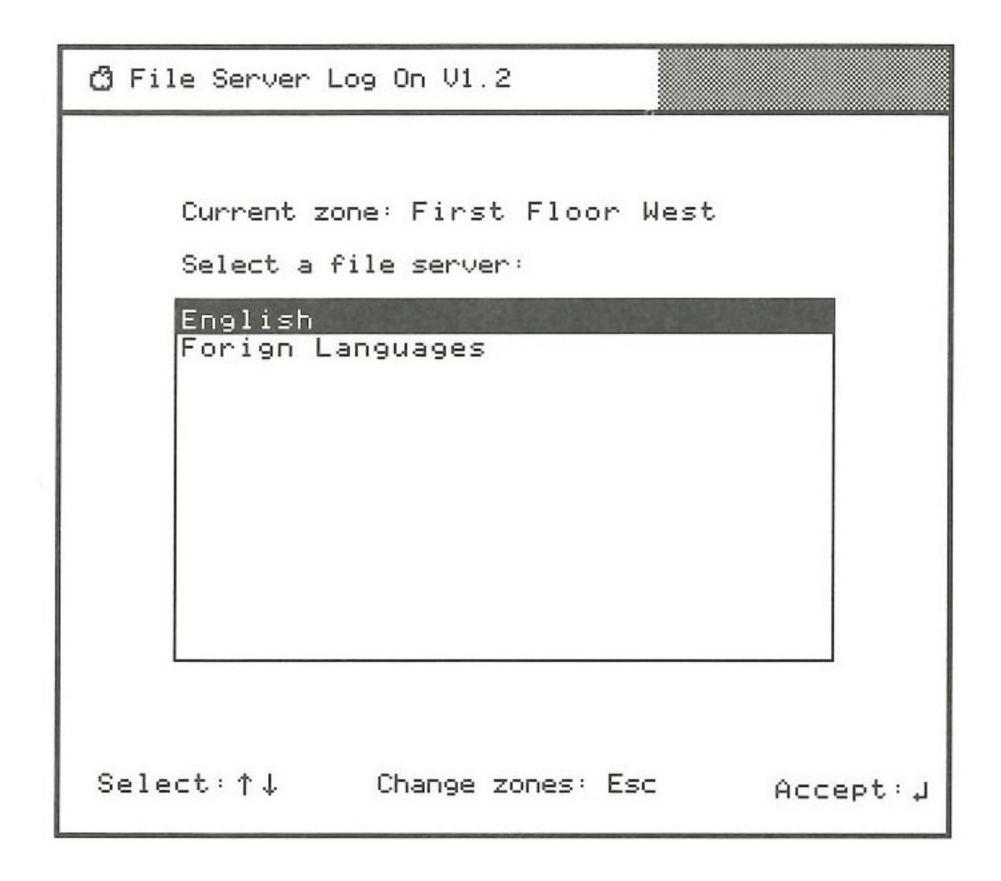
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If your network is divided into zones, or if there is more than one file server on your network, you'll see a screen similar to the one shown in Figure 3-6. (If your network isn't divided into zones and there is only one file server on the network, you'll see the screen shown in Figure 3-8. Skip ahead to step 5.)

■ **Figure 3-6** The file server selection screen

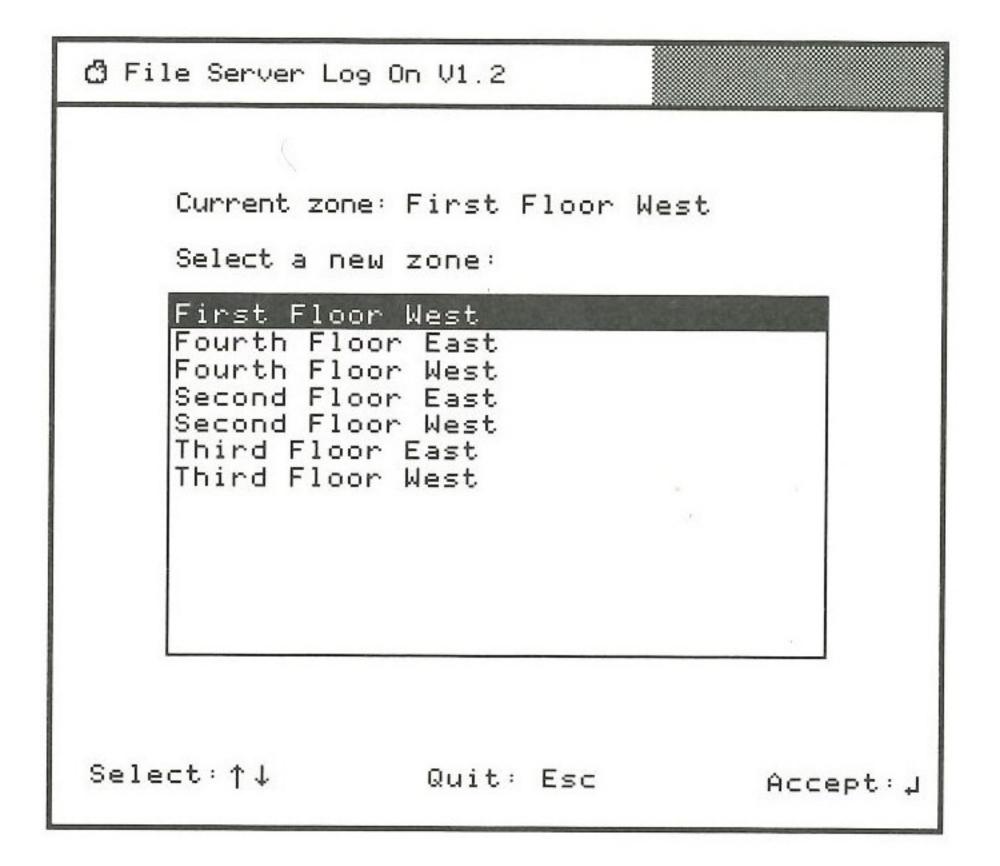


2. If you want to select a new zone, press the Esc key.

You'll see the screen in Figure 3-7.

The name of the current zone (if your network is divided into zones) appears near the top of the screen. If the current zone is the one you want—or if the network doesn't have zones—skip ahead to step 4.

■ **Figure 3-7** The zone selection screen



3. Select a new zone.

Use the Down Arrow or Up Arrow key to highlight the name of the desired zone, and then press Return.

You'll see a file server selection screen (similar to the one in Figure 3-6) for the new zone.

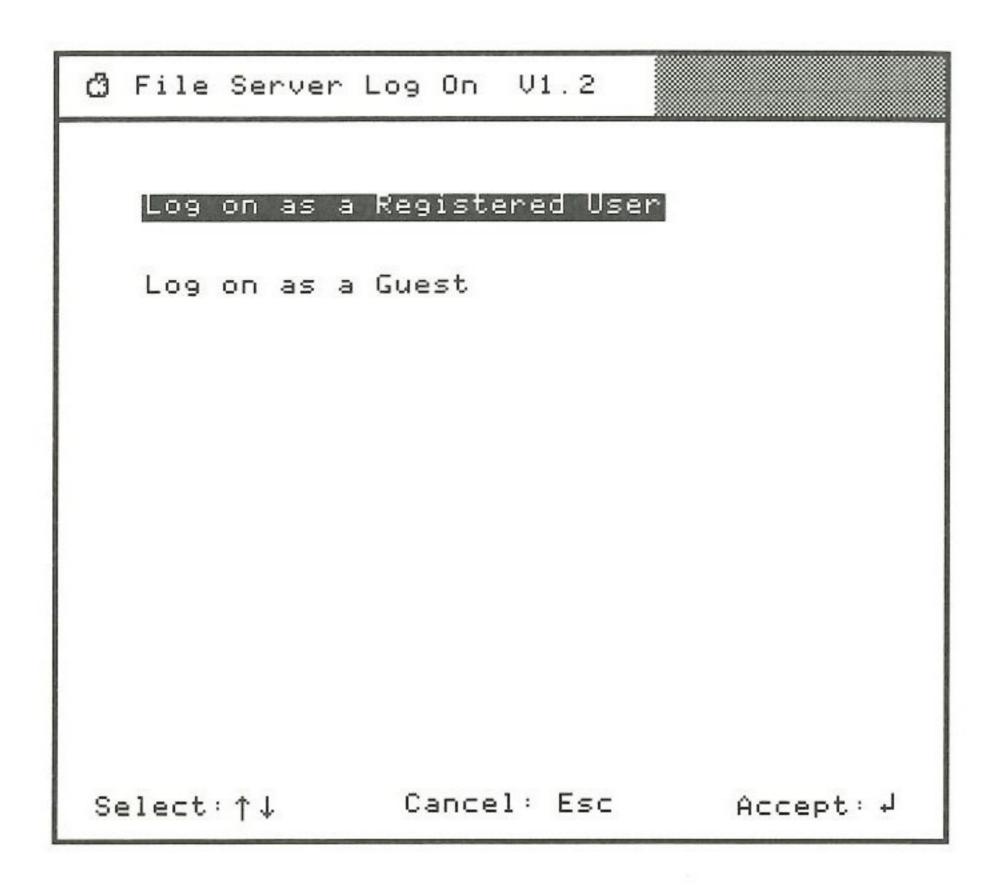
4. Select a file server.

Use the Down Arrow or Up Arrow key to highlight the name of the file server you want to log on to, and then press Return.

You'll see the screen in Figure 3-8.

The "Log on as a Registered User" option should be highlighted.

■ **Figure 3-8** The log-on option screen



5. Specify whether you want to log on as a registered user or as a guest.

If you want to log on as a guest, use the Down Arrow key to highlight "Log on as a Guest" and press Return. Then go on to the last two paragraphs of step 7.

If you want to log on as a registered user, press Return. You'll be asked to supply your user name and password in the lower half of the screen, as shown in Figure 3-9.

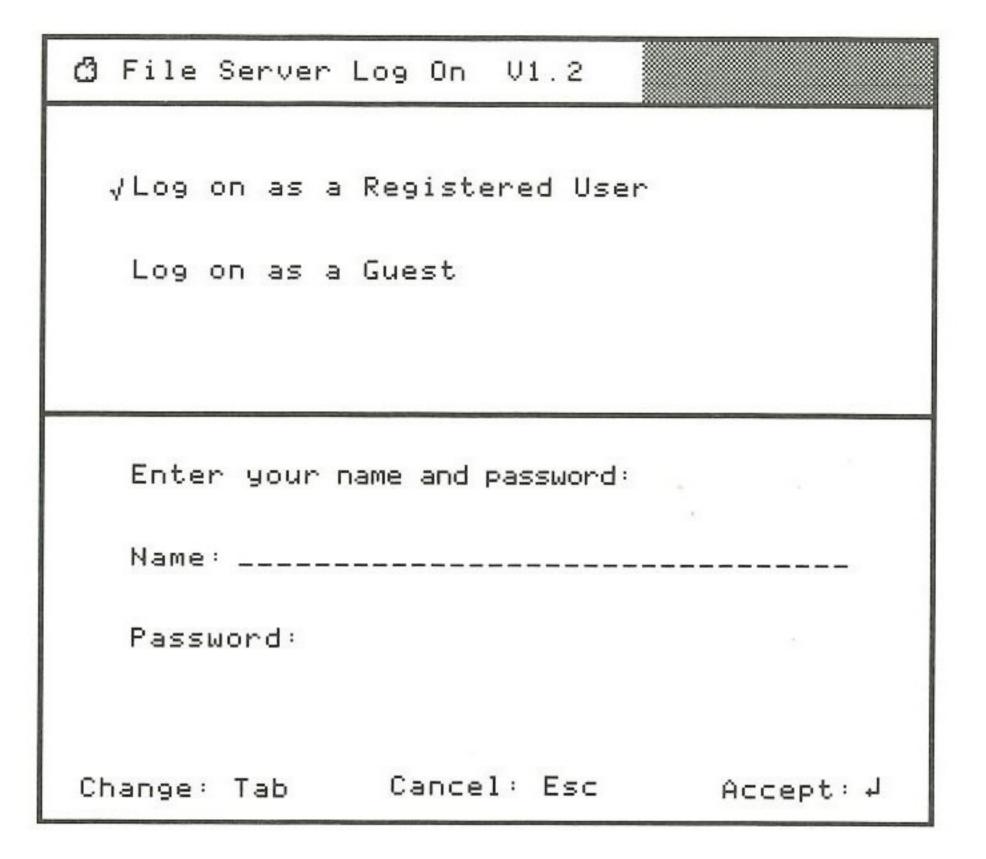
6. Type your user name.

Be sure to type your user name as it was given to you by the network administrator—though you don't need to worry about matching uppercase and lowercase letters. If you make a mistake, use the Delete key and retype. When the name is correct, press Return.

Keyboard shortcuts: Pressing Control-X clears the entire line; pressing Control-Y clears all characters between the cursor and the end of the line; pressing Control-R restores the previous content of the line.

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■ Figure 3-9 Logging on as a registered user



7. Type your password.

As you type, asterisks appear in place of characters so that no one can see your password as you type it.

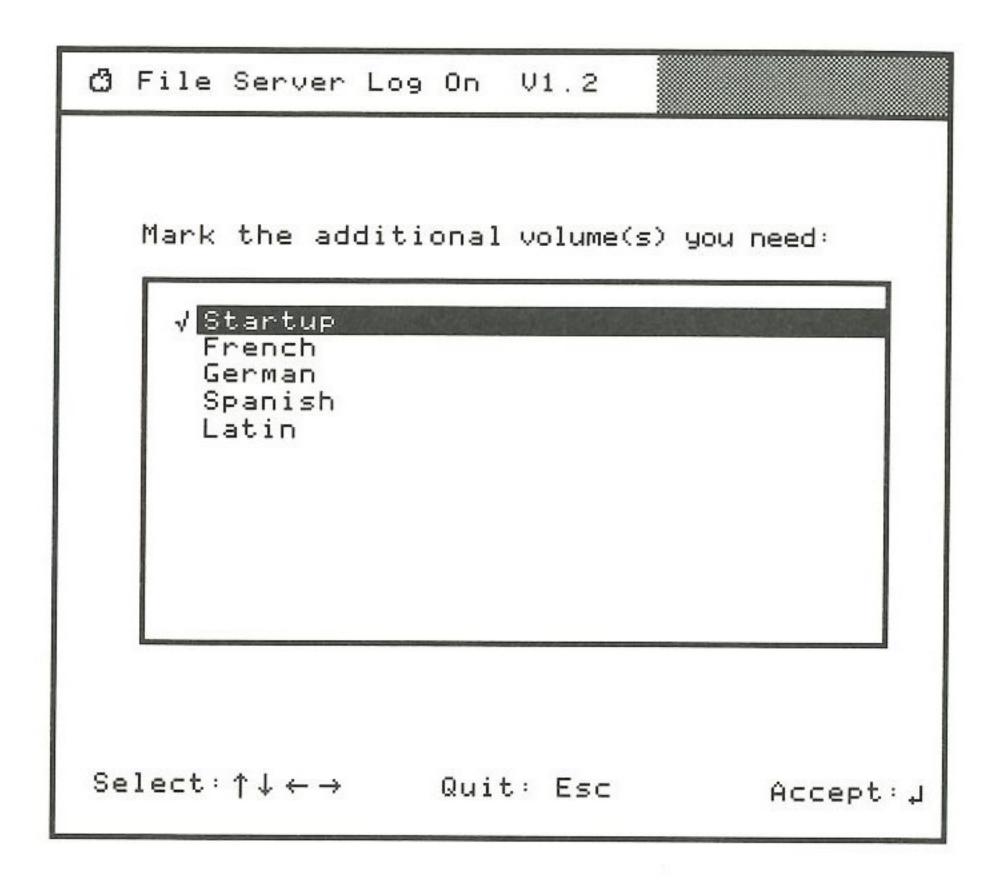
Type your password exactly as it was given to you by the network administrator—being sure to match uppercase and lowercase letters. If you think you've made a mistake, use the Delete key to erase the asterisks and then retype the password.

When the password is correct, press Return.

If the file server has only one volume, you'll see the "Welcome to the IIGS" screen, followed by the message "One Moment Please . . . " while the computer launches your startup application over the network. You're logged on automatically, and you can skip step 8.

If the file server you selected has more than one volume, you'll see the screen shown in Figure 3-10. Go on to step 8.

■ **Figure 3-10** Selecting file server volumes



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8. Select the file server volumes to which you want access.

The startup volume is automatically selected (with a check mark) and cannot be deselected. Your network administrator will tell you which other volumes, if any, you need to select.

To select a volume, press the Down Arrow to highlight the volume's name, then press the Left Arrow (or Space bar) to add a check mark. (Pressing the Left Arrow again removes the check mark.)

When all the volumes you want are selected, press Return. You'll see the "Welcome to the IIGS" screen, followed by the message "One Moment Please . . . " while the computer launches your startup application over the network.

Logging on with a disk that doesn't include the Finder

If you'll be logging on with a disk that doesn't include the Finder, your network administrator will probably create your startup disk for you. If you don't have the appropriate startup disk, check with your administrator or refer to the instructions in "Creating 3.5-inch Network Startup Disks That Don't Include the Finder" in Chapter 2.

You'll also need to make sure that your startup slot is set to the slot corresponding to the disk in which you'll insert the startup disk. For instructions, see the owner's guide or owner's reference that came with your Apple IIGs.

The process for logging on with a disk that doesn't include the Finder is similar to the process for starting up over the network. Logging on with a disk requires a disk drive but can be faster than starting up over the network.

Follow these steps to log on with a disk that doesn't include the Finder:

- 1. Start up (or restart) the computer with your AppleShare startup disk. You'll see the "Welcome to the IIGs" screen.
- 2. The process you follow depends on what screen you see next.
- ☐ If you see the screen shown in Figure 3-6, follow steps 2 through 8 in the preceding section, "Starting Up Over the Network."
- ☐ If you see the screen shown in Figure 3-8, follow steps 5 through 8 in the preceding section, "Starting Up Over the Network."

As you go through the appropriate steps in "Starting Up Over the Network," there will be slight differences in what you see on the screen—for example, you won't see the message "Welcome to the IIGs" in step 7 or step 8—but the steps you follow will be the same.

Creating a folder on a file server volume

You create a folder on a file server volume exactly as you would create a folder on any other disk. Follow these steps:

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- 1. Log on to the file server and select the file server volume where you want to create the folder.
 - For instructions, see "Logging On to a File Server From the Control Panel" earlier in this chapter.
- 2. Open the icon of the file server volume and any necessary folder icons on that volume until the window where you will create the folder is displayed.
- 3. Choose New Folder from the File menu.
 - A new folder appears on the desktop. (You may need to scroll through the window in order to see the new folder.)
- 4. Rename the folder.
 - For instructions, see "To Rename Icons" in Chapter 1 of the *Apple IIGS System Software User's Guide.*

Setting access privileges for a folder

Because file server volumes represent shared storage areas, you may need to set access privileges for your folders to make sure that only the appropriate people have access to the information stored there. You can set access privileges for a folder only if you are the registered user who owns it or if it is owned by <Any User>.

You can use access privileges in many ways. In a school setting, for example, you might want to set up a "bulletin board" folder for announcements, where only teachers can post announcements but where all network users can read announcements.

In creating customized access to a folder, you need to decide which network users (if any) should have the following access privileges:

- See Folders—the privilege to see the folders (if any) in your folder.
- See Files—the privilege to see, open, and copy documents and applications (if any) in your folder.
- Make Changes—the privilege to make changes to your folder's contents, including removing, renaming, or deleting contents as well as adding files or folders.

When you set access privileges for a folder, you must decide which of the following categories should have each access privilege:

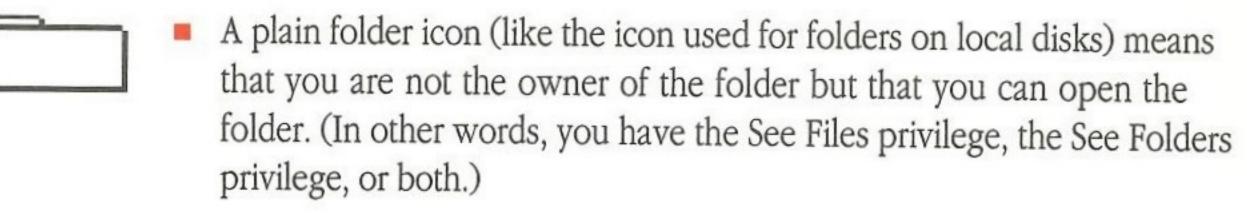
- Nobody means no one, including you.
- **Owner** means you (unless you transfer ownership of the folder).
- **Group** means any single AppleShare group the network administrator has created—including a group of which you are not a member.
- **Owner & Group** means you (unless you transfer ownership of the folder) and any single AppleShare group the network administrator has created—including a group of which you are not a member.
- **Everyone** means all network users, including guests.
- * An example: A teacher might want to create a folder where students in his or her class can turn in an essay. Students in the class should not be able to read the other essays that have been turned in, and students from other classes should not be able to add anything to the folder.

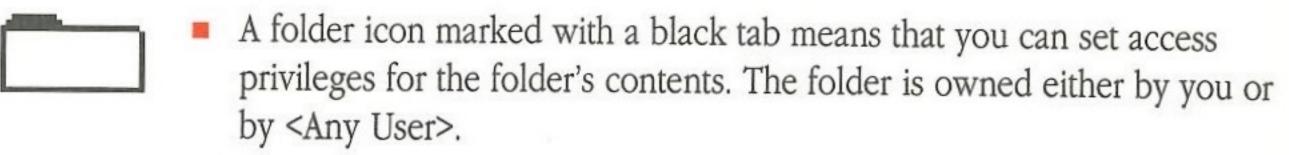
In creating this folder, the teacher would assign the See Folders and See Files privilege to Owner and the Make Changes privileges to Owner & Group. (The teacher must also assign a group to the folder—in this case, the group of students in the class. Because only the network administrator can *create* groups, the teacher may first need to ask the administrator to set up the appropriate group.)

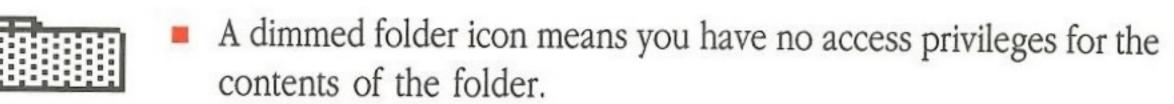
The icon of a folder on a file server volume may look different from icons on local disks, depending on what access privileges the owner of the folder has assigned you. There are five icons used for folders on file server volumes:

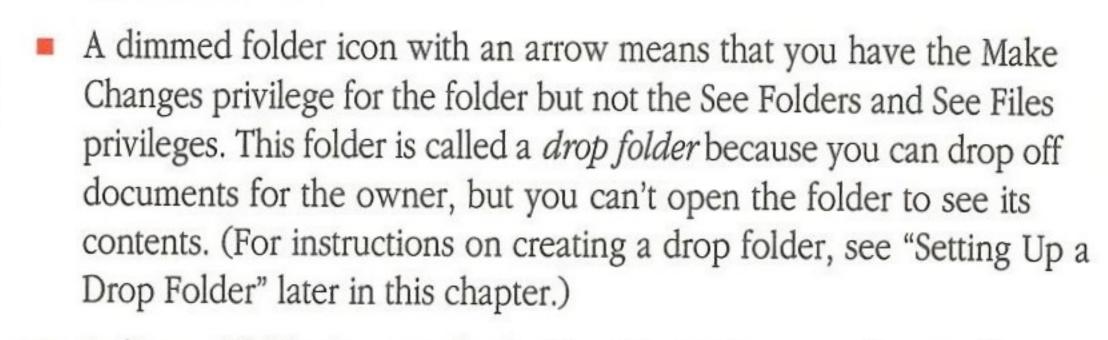
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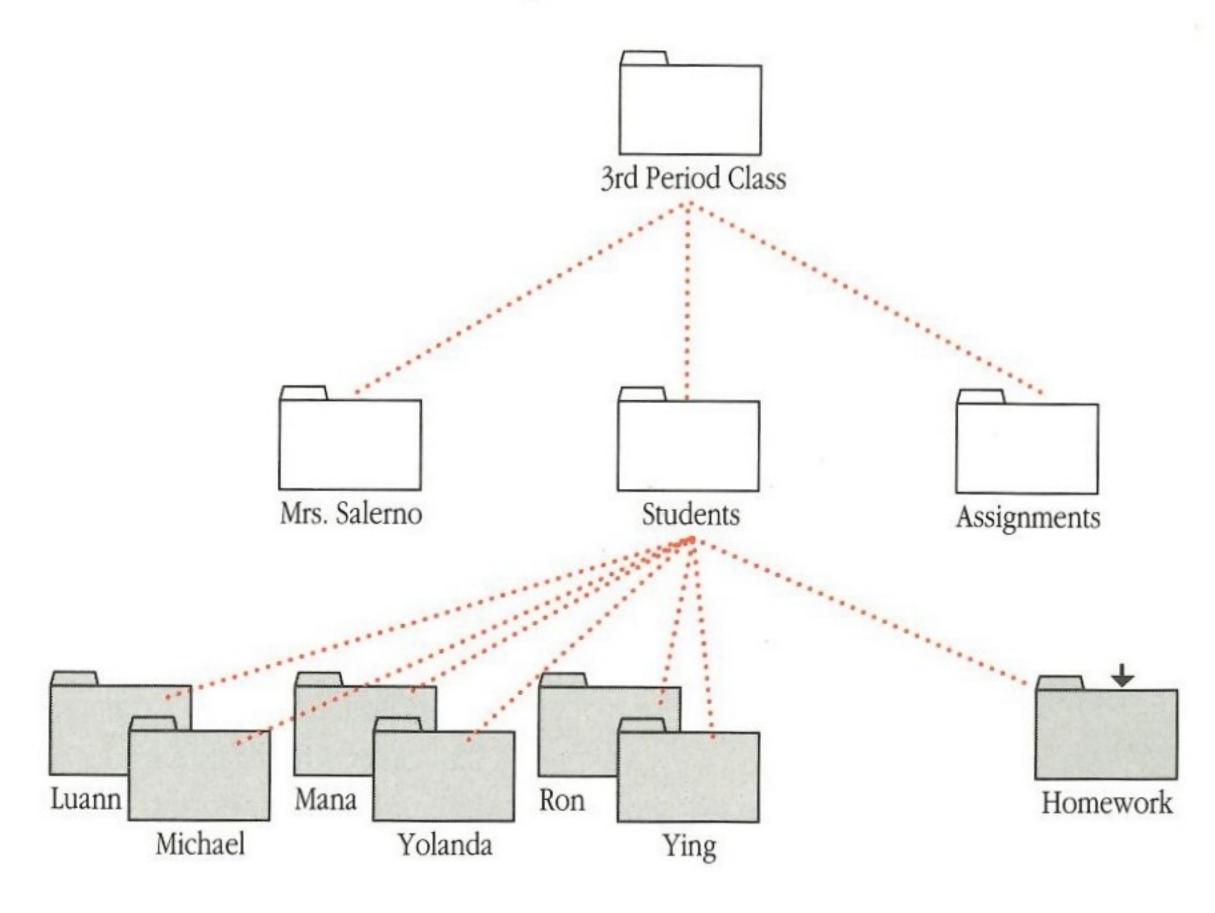


A dimmed folder icon marked with a black tab means that you have no access privileges for the contents of the folder but that you or <Any User> owns the folder and thus can change the folder's access privileges. (For more information on this type of folder, see "Safeguarding the Contents of a Folder" later in this chapter.)

Figure 3-11 shows a typical hierarchy of folders on a volume, organized by class. You may organize your folders in any way you choose.

When you open a folder for which you do not have certain access privileges, an icon representing each privilege you *do not* have appears below the title bar of the window and to the left of the information about directory contents. These icons may appear individually or in any combination, depending on the access privileges you *do not* have for the folder that's open on the desktop. See Table 3-1.

■ Figure 3-11 A typical hierarchy of folders on a volume



■ Table 3-1 Menu bar icons showing access privileges you don't have

| When you see | You know that |
|--------------|---|
| | You can't see the enclosed folders |
| | You can't see the enclosed files |
| | You can't make changes to the folder's contents |

Follow these steps to set access privileges for a folder:

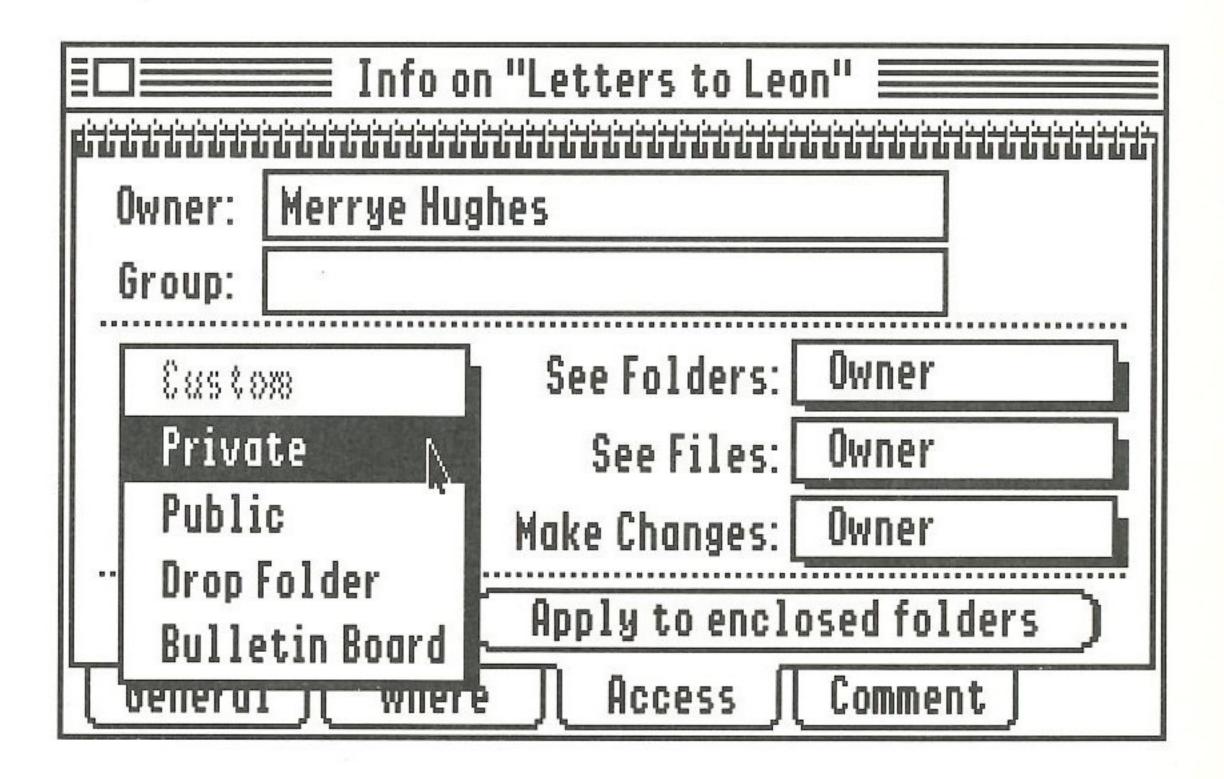
- 1. Log on to the file server and select the file server volume for which you want to set access privileges.
 - For instructions, see "Logging on to a File Server From the Control Panel" earlier in this chapter.

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- 2. Open the icon of the file server volume and any necessary folder icons on that volume until the folder for which you want to set access privileges is displayed in a window.
- 3. Select the folder icon.
- 4. Choose Icon Info from the Special menu, or press Command-I.
- 5. Click the Access tab at the bottom of the Info card.

You'll see the the screen in Figure 3-12.

- Note: The Access and Comment tabs appear only when you select a file server volume or a folder on a file server volume and choose Icon Info. (They don't appear when you select a file on a file server volume and choose Icon Info.)
- **Figure 3-12** The Access card



The Comment card contains comments only if the selected file or folder was created on a Macintosh computer. (You can't create or edit comments in the Finder, but you can see any comments associated with an icon.)

- 6. If you wish, change the See Folders privilege.
 - Position the pointer on the box to the right of the words *See Folders* and hold down the mouse button. A pop-up menu appears, listing the five possible settings. Drag through the list until the desired setting is highlighted, then release the mouse button.
- 7. If you wish, change the See Files and Make Changes privileges in the same fashion.
- 8. Click the appropriate button to apply the changes.
- ☐ If you want to assign the same set of access privileges to all the folders within this folder as well, click the "Apply to enclosed folders" button.
- ☐ If you don't want to assign the same set of access privileges to all the folders within this folder as well, click the Apply button.
- 9. Close the Info window.

Transferring ownership of a folder

If you are the owner of a folder, you can transfer ownership to another registered user or to <Any User>. Once you give away ownership of a folder, only the new owner will be able to change the access privilege settings.

Follow these steps to transfer ownership of a folder:

- 1. Log on to the file server and select the file server volume that contains the folder for which you want to transfer ownership.
- For instructions, see "Logging on to a File Server From the Control Panel" earlier in this chapter.
- 2. Open the icon of the file server volume and any necessary folder icons on that volume until the folder for which you want to transfer ownership is displayed in a window.
- 3. Select the folder icon.

- 4. Choose Icon Info from the Special menu, or press Command-I.
- 5. Click the Access tab at the bottom of the Info card.
- 6. If you wish, make any changes to the access privileges for the folder. For instructions, see "Setting Access Privileges for a Folder" earlier in this chapter.

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- 7. Drag across your user name to select it.
- 8. Type the name of the registered user to whom you want to transfer ownership of the folder. (If you want to give ownership of the folder to all network users, type <Any User> instead of a registered user name.)
- 9. Click the appropriate button to apply the changes.
 - If you want to assign the same set of access privileges to all the folders within this folder as well, click the "Apply to enclosed folders" button.
 - ☐ If you don't want to assign the same set of access privileges to all the folders within this folder as well, click the Apply button.

A dialog box appears asking you to confirm that you want to change ownership of the folder.

10. Close the Info window.

Claiming a folder created by a guest

If <Any User> is the owner of a folder, any registered user can claim ownership of that folder. Once someone claims ownership of a folder created by a guest, he or she will be the only person able to change the folder's access privilege settings.

Follow these steps to claim a folder created by a guest:

- 1. Log on to the file server and select the file server volume that contains the folder you want to claim.
 - For instructions, see "Logging on to a File Server From the Control Panel" earlier in this chapter.
- 2. Open the icon of the file server volume and any necessary folder icons on that volume until the folder you want to claim is displayed in a window.

- 3. Select the folder icon.
- 4. Choose Icon Info from the Special menu, or press Command-I.
- 5. Click the Access tab at the bottom of the Info card.
- 6. Drag across the user name <Any User> to select it.
- 7. Type your user name exactly as it was given to you by the network administrator.
- 8. If you wish, make any changes to the access privileges for the folder. For instructions, see "Setting Access Privileges for a Folder" earlier in this chapter.
- 9. Click the appropriate button to apply the changes.
 - ☐ If you want to assign the same set of access privileges to all the folders within this folder as well, click the "Apply to enclosed folders" button.
 - ☐ If you don't want to assign the same set of access privileges to all the folders within this folder as well, click the Apply button.

A dialog box appears asking you to confirm that you want to change ownership of the folder.

10. Close the Info window.

Assigning a group to a folder

If your network administrator has set up groups on the network, you can assign a group to any folder you create. Assigning a group merely indicates what group you want to associate with the folder—you still need to set access privileges for the Group (or the Owner & Group) category before members of the group will have access to the contents of the folder.

Your network administrator may also have assigned you to a **primary group**—that is, a group with which your folders are associated unless you specify otherwise. (Primary groups are particularly useful when much of your work is likely to be shared by the same subset of network users.) When you create a folder, the primary group is set as the folder's group—but you're free to change that designation to another group if you prefer. Even when your primary group is associated with a folder, members of that group will not have access to the folder unless you set access privileges accordingly.

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Follow these steps to assign a group to a folder (or to change to a different group):

- 1. Log on to the file server and select the file server volume that contains the folder for which you want to assign a group.
 - For instructions, see "Logging On to a File Server From the Control Panel" earlier in this chapter.
- 2. Open the icon of the file server volume and any necessary folder icons on that volume until the folder for which you want to assign a group is displayed in a window.
- 3. Select the folder icon.
- 4. Choose Icon Info from the Special menu, or press Command-I.
- 5. Click the Access tab at the bottom of the Info card.
- 6. Drag across the current group name (if any) to select it. (Or, if there is no group name, click anywhere in the box to the right of the word *Group* to position the insertion point in the box.)
- 7. Type the new group name exactly as it was given to you by the network administrator.
- 8. If you wish, make any changes to the access privileges for the folder.

 For instructions, see "Setting Access Privileges for a Folder" earlier in this chapter.
- 9. Click the appropriate button to apply the changes.
 - ☐ If you want to assign the same privileges to all the folders within this folder, click the "Apply to enclosed folders" button.
 - If you don't want to assign the same privileges to all the folders within this folder, click the Apply button.
- 10. Close the Info window.

Safeguarding the contents of a folder

Just as you can write-protect a disk so that you don't accidentally change the information it contains, you can also safeguard the contents of a folder on a file server volume—making it impossible for anyone, including you, to accidentally erase the information it contains. You do so by setting the Make Changes privilege so that no one can change the folder's contents.

Before you follow this procedure, make sure that the folder already contains the information you want to keep safe. (If you want to make changes after you've safeguarded the folder, you'll have to change the access privileges again.)

Safeguarding the contents of a folder doesn't prevent the folder itself from being renamed, discarded, or moved. To do that, you need to lock the folder, as explained in "To Lock a File or Folder" in Chapter 3 of the *Apple IIGS System Software User's Guide*.

Follow these steps to safeguard the contents of a folder:

- 1. Log on to the file server and select the volume that contains the folder you want to safeguard.
 - For instructions, see "To Log On to a File Server From the Control Panel" earlier in this chapter.
- 2. Open the icon of the volume and any necessary folder icons on that volume until the window that contains the desired folder is displayed.
- 3. Select the folder icon.
- 4. Choose Icon Info from the Special menu, or press Command-I.
- 5. Click the Access tab at the bottom of the Info card.
- 6. Change the Make Changes privilege to Nobody.

To change the privilege setting, position the pointer on the box to the right of the words *Make Changes* and hold down the mouse button. When a pop-up menu of choices appears, drag the pointer through the menu until Nobody is selected and then release the mouse button.

In this case, you'll probably want to apply the protection to enclosed folders as well. If you don't, click the Apply button instead.

- 7. Click the "Apply to enclosed folders" button to apply the changes.
- 8. Close the Info window.

Setting up a bulletin board folder

An AppleShare file server lets you set up a folder as a "bulletin board"—that is, as a folder where any network user can open and read documents. The person who maintains the bulletin board folder is the only one who can make changes to the contents of the folder, so he or she is the only person who can post or change documents.

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Follow these steps to create a bulletin board folder on a file server volume:

- 1. Log on to the file server as a registered user and select the volume where you want to create the "bulletin board."
 - For instructions, see "Logging On to a File Server From the Control Panel" earlier in this chapter.

Important To prevent other network users from claiming ownership of the bulletin board folder, you must create the folder when you're logged on as a registered user. \triangle

- 2. Open the icon of the file server volume and any necessary folder icons on that volume until the window where you will create the bulletin board is displayed.
- 3. Choose New Folder from the File menu.
 - A new folder, called *Untitled*, appears on the desktop. (If there was already a folder called *Untitled*, the new folder will be called *Untitled.A* and so on until you reach Untitled.Z. If all possible names from Untitled. A through Untitled. Z are taken, you can't create any additional new folders without first naming one of the untitled folders.)
 - You may need to scroll through the window in order to see the new folder.
- 4. Rename the folder using a name that all users will easily recognize—for example, Sales Bulletins.
 - For instructions, see "To Rename Icons" in Chapter 1 of the Apple IIGS System Software User's Guide.
- 5. Select the folder icon.
- 6. Choose Icon Info from the Special menu, or press Command-I.

- 7. Click the Locked check box at the upper-right corner of the General card to lock the folder.
- 8. Click the Access tab at the bottom of the card.
- 9. Change the folder's designation from Private to Bulletin Board.

To change the designation, position the pointer on the box containing the word *Private* and hold down the mouse button. When a pop-up menu of choices appears, drag the pointer through the menu until Bulletin Board is selected and then release the mouse button. See Figure 3-13.

Note that the access privilege settings for See Folders and See Files change from Owner to Everyone.

- Click the appropriate button to apply the changes.
 - □ If you want to assign the same set of access privileges to all the folders within this folder as well, click the "Apply to enclosed folders" button.
 - ☐ If you don't want to assign the same set of access privileges to all the folders within this folder as well, click the Apply button.
- Close the Info window.
- Figure 3-13 The access privilege settings for a bulletin board

| ≣□≡≡≡≡ Info on "Announcements" ≡≡≡≡≡ | | | | | | |
|--------------------------------------|---------------|---------------|----------|--|--|--|
| | | | | | | |
| Owner: | Michael Joyce | | | | | |
| Group: | | | | | | |
| | | See Folders: | Everyone | | | |
| Bulle | tin Board | See Files: | Everyone | | | |
| | | Make Changes: | Owner | | | |
| (Apply) (Apply to enclosed folders) | | | | | | |
| [General | Where | Access | Comment | | | |

Setting up a drop folder

An AppleShare file server lets you set up a folder as a "drop folder"—that is, as a folder where users can drop off documents for you. Once a document is dropped off, only you can see its icon and open it. In other words, a drop folder works much like a locked mailbox or a suggestion box.

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* By the way: When you work with an application that uses a Save or Save As directory dialog box, other network users won't be able to save a copy of a document in your drop folder. (To do so they would need to have See Folders privilege, and the folder would no longer be a drop folder.) They'll need to user the Finder to drop off a copy of the document.

Follow these steps to create a drop folder on a file server volume:

- 1. Log on to the file server and select the volume where you want to create the drop folder.
- For instructions, see "Logging On to a File Server From the Control Panel" earlier in this chapter.
- 2. Open the icon of the file server volume and any necessary folders on that volume until the window where you will create the drop folder is displayed.
- 3. Choose New Folder from the File menu.
 - A new folder, called *Untitled*, appears on the desktop. (If there was already a folder called *Untitled*, the new folder will be called *Untitled*. A—and so on until you reach *Untitled*. Z. If all possible names from *Untitled*. A through *Untitled*. Z are taken, you can't create any additional new folders without first naming one of the untilted folders.)
 - You may need to scroll through the window in order to see the new folder.
- 4. Rename the folder using a name that all users will easily recognize—for example, *Memos to Francesca*.
 - For instructions, see "To Rename Icons" in Chapter 1 of the *Apple IIGS System Software User's Guide.*
- 5. Select the folder icon.
- 6. Choose Icon Info from the Special menu, or press Command-I.

- 7. Click the Locked check box at the upper-right corner of the General card to lock the folder.
- 8. Click the Access tab at the bottom of the card.
- 9. Change the folder's designation from Private to Drop Folder.

To change the designation, position the pointer on the box containing the word *Private* and hold down the mouse button. When a pop-up menu of choices appears, drag the pointer through the menu until Drop Folder is selected and then release the mouse button. See Figure 3-14.

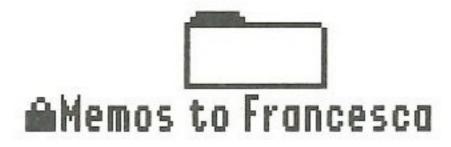
Note that the Make Changes privilege changes from Owner to Everyone.

- 10. Click the appropriate button to apply the changes.
 - If you want to assign the same set of access privileges to all the folders within this folder as well, click the "Apply to enclosed folders" button.
 - ☐ If you want to assign these privileges only to this folder, click the Apply button.
- 11. Close the Info window.
- Figure 3-14 The access privilege settings for a drop folder

| | Info on | "Biweekly Stat | us" | | |
|-------------------------------------|-----------|----------------|----------|--|--|
| | | | | | |
| Owner: | Ms. Hewes | | | | |
| Group: | | | | | |
| | | See Folders: | Owner | | |
| Drop Folder | | See Files: | Owner | | |
| | | Make Changes: | Everyone | | |
| (Apply) (Apply to enclosed folders) | | | | | |
| [Genera: | l Where | Access | Comment | | |

The folder now functions as a drop folder. When you see the folder in its directory window, it appears like any other locked folder you own—that is, it has a lock icon to the left of its name and it has a black tab. But when other users see the folder in its directory window, they see a shaded folder with an arrow pointing to it—indicating that it is a drop folder. See Figure 3-15.

■ Figure 3-15 How a drop folder appears to the owner and other users





How the drop folder appears to you

How the drop folder appears to other users

Logging off a file server

You can log off a file server in three ways:

- If you're using a Finder-based AppleShare startup disk, follow the instructions in the following section, "Logging Off in the Finder."
- If you started up over the network or are using an AppleShare startup disk that doesn't include the Finder, and the network administrator has installed the Server Quick Logoff program, follow the instructions in "Logging Off Without the Finder: Quick Logoff."
- If you started up over the network or are using an AppleShare startup disk that doesn't include the Finder, and the network administrator has not installed the Server Quick Logoff program, follow the instructions in "Logging Off Without the Finder: Regular Logoff."

Logging off in the Finder

Follow these steps to log off a file server when you're using a Finder-based AppleShare startup disk:

1. If necessary, quit the application you're using. You return to the Finder desktop.

2. Drag the icons of all file server volumes to the Trash.

The icons disappear from the desktop, and you're automatically disconnected from the file server.

Logging off without the Finder: Quick logoff

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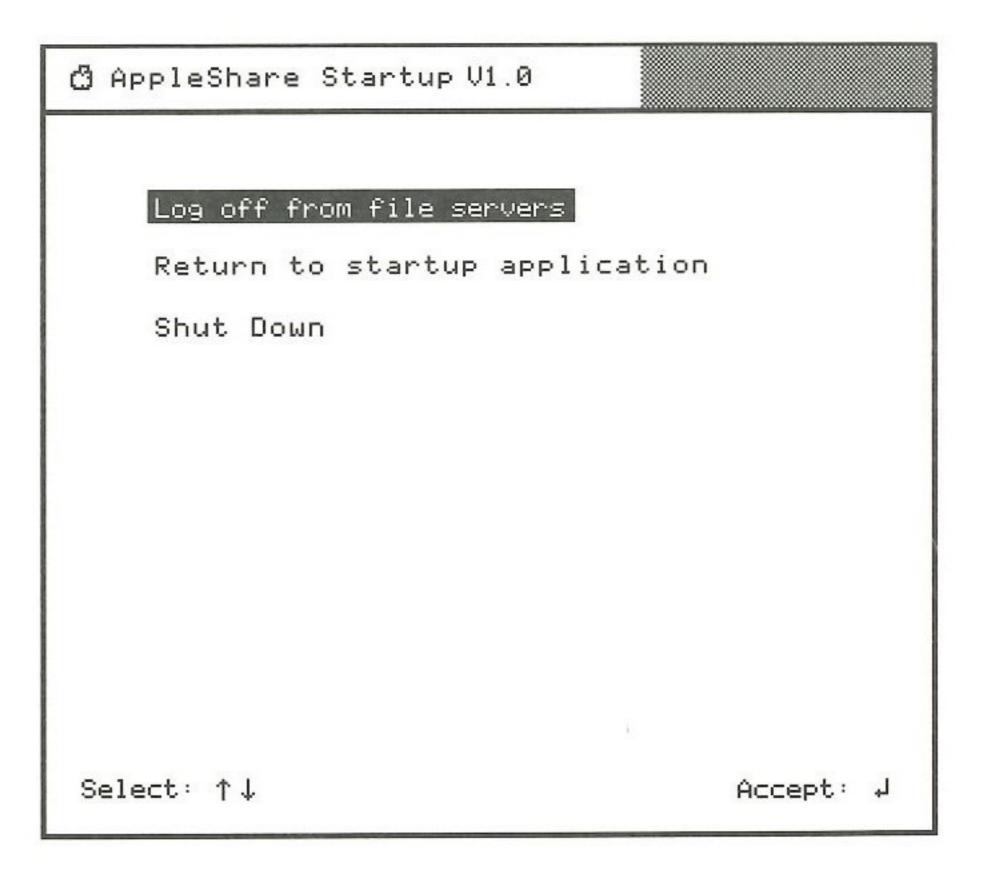
To log off without the Finder when the administrator has installed the Server Quick Logoff program, simply quit the application you're using. You're automatically logged off the file server, and you return to the screen shown in Figure 3-6 or in Figure 3-8 (depending on whether your network is divided into zones and whether there is more than one file server on your network).

From there, you (or any other registered user or guest) can log on to a file server. Or you can shut down the computer.

Logging off without the Finder: Regular logoff

Follow these steps to log off without the Finder when the administrator has not installed the Server Quick Logoff program:

- 1. Quit the application you're using. You'll see the screen in Figure 3-16.
- **Figure 3-16** The log-off screen



2. Press Return to accept the "Log off from file servers" option.

You're automatically logged off the file server, and you return to the screen shown in Figure 3-6 or in Figure 3-8 (depending on whether your network is divided into zones and whether there is more than one file server on your network).

From there, you (or any other registered user or guest) can log on to a file server.

* About the other options: The "Return to startup application" option starts up the computer again with your startup application, just as if you had logged on again. Select this option if you accidentally quit your startup application and want to return to it.

The Shut Down option works like the Shut Down command in the Finder: it logs you off all file servers, ejects any disks in your disk drives, and shuts down the computer. A message on the screen lets you know that it's safe to switch off the computer's power, and a button on the screen gives you the option to restart.

If someone else wants to use the computer, he or she can either start up over the network (by clicking the Restart button) or start up from a local disk (by inserting the disk and clicking the Restart button). If no one else wants to log on after you, switch off the computer.

C H A P T E R

Printing Over the Network

HIS CHAPTER DESCRIBES THE PRINTING CAPABILITIES AVAILABLE TO YOU when your network includes a network printer—either an ImageWriter or a LaserWriter printer. If your computer isn't connected to an AppleTalk network system with LocalTalk cables, see Chapter 2 before you read this chapter.

Network printing appears much the same as printing with a **local printer** (a printer connected directly to your computer), with the added advantage that network users can share printers. This section explains how to choose a network printer, how to use a printer that's controlled by an AppleShare print server, and how to name a network printer.

All other aspects of printing are the same whether you use a network printer or a local printer. For more information, see "Printing Documents" in Chapter 4 of the *Apple IIGS System Software User's Guide*, or refer to the manuals that came with your printer and the application you're using.

Choosing a network printer

Follow these steps to choose a network printer:

- 1. Start up the computer with a startup disk on which you have installed the appropriate network printer update (AppleTalk ImageWriter, AppleTalk ImageWriter LQ, or LaserWriter).
- If you haven't created such a startup disk, see "Installing the Appropriate Networking Updates" in Chapter 2.

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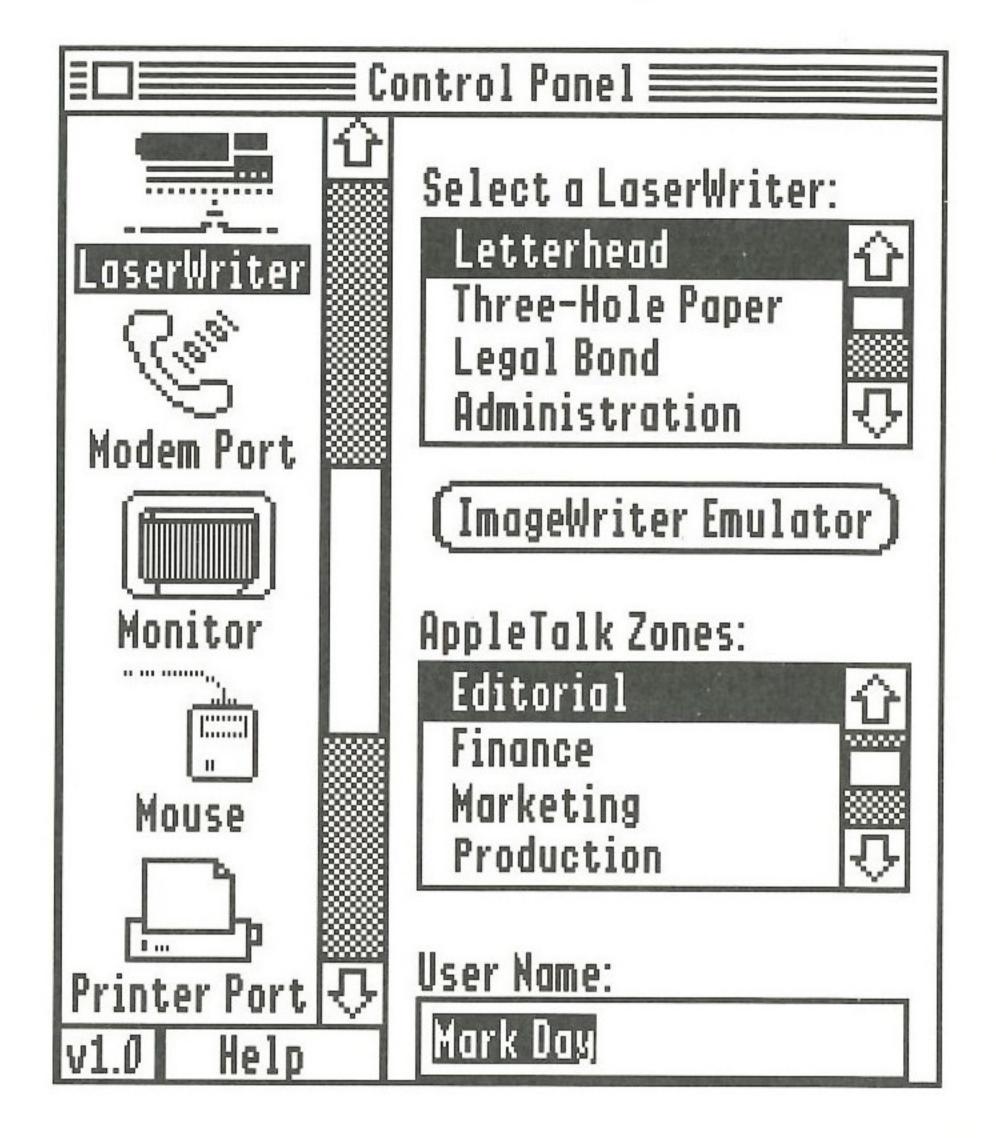
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- 2. Choose Control Panel from the Apple menu.
- 3. Select the icon for the desired printer type in the column on the left side of the Control Panel.
- The selection options for that type of printer appear on the right side of the Control Panel. (Figure 4-1 shows the selection options for LaserWriter printers; the options for ImageWriter and ImageWriter LQ printers are similar.)
- 4. If necessary, select a zone.
- If your AppleTalk network system is not divided into zones, skip this step.
- If your network is divided into zones, the name of your zone should be highlighted in the AppleTalk Zones window. If you want to use a printer in a different zone, simply click the name of the zone. (If there are more than four zones in your network, you may need to scroll through the window to find the zone you want.)
- 5. Select the printer you want to use.
 - If the name of the printer you want to use is already highlighted, skip this step.
 - To select a printer, simply click its name in the window in the upper right.
- If there are more than four printers of the type you selected in step 3, you may need to scroll through the window to find the printer name you want.

■ Figure 4-1 The LaserWriter selection options in the Control Panel



6. If you're choosing a LaserWriter, click the ImageWriter Emulator button. The ImageWriter Emulator is a program that makes it possible to use a LaserWriter with any application designed to print with an ImageWriter. Clicking the ImageWriter Emulator button tells the computer to install this program in the memory of the LaserWriter.

You'll see the message "Checking for presence of the ImageWriter Emulator." If someone has chosen the printer from an Apple II computer since the printer was last switched on, you'll see the message "The ImageWriter Emulator is already installed in the selected printer." Click OK in the dialog box and go on to step 7.

If no one has chosen the printer from an Apple II computer since the printer was last switched on, you'll see the message "Downloading the emulator." When the message disappears, the ImageWriter Emulator has been installed on the selected printer.

7. Close the Control Panel.

Using a captured printer

If your network includes one or more AppleShare print servers, you have access to at least one **captured printer**—that is, a printer controlled by a print server. The advantage of using a captured printer is that the print server takes over the task of sending documents to the printer, freeing up your workstation so that you can continue your work.

You choose a captured printer in exactly the same way you choose any other network printer. (The only visible difference in the Control Panel is that a captured printer name ends with the word *Spooler*.) Follow the steps outlined in "Choosing a Network Printer" earlier in this chapter. When you've chosen a captured printer, your computer will send all the documents you print to the print server, where they are stored until the captured printer is available.

The only time you may not want to use a captured printer is when you need to feed paper manually into the printer (to insert a sheet of letterhead stationery, for example). If you tried to use a captured printer for this purpose, it would be difficult to predict exactly when to insert the paper. You can, however, use a captured printer for which the administrator has allowed the **Bypass** option—an option to print directly to a captured printer without going through the print server. See your administrator to find out which captured printers have the Bypass option selected.

Naming a network printer

If you have only one printer of a given type, you don't need to name it—it's automatically named after its type—but you may prefer a more creative name than the default name *LaserWriter*, *ImageWriter LQ*, or *ImageWriter II*. If you have more than one printer of a given type, it's important that each printer has its own name so network users will know where to find their printed documents.

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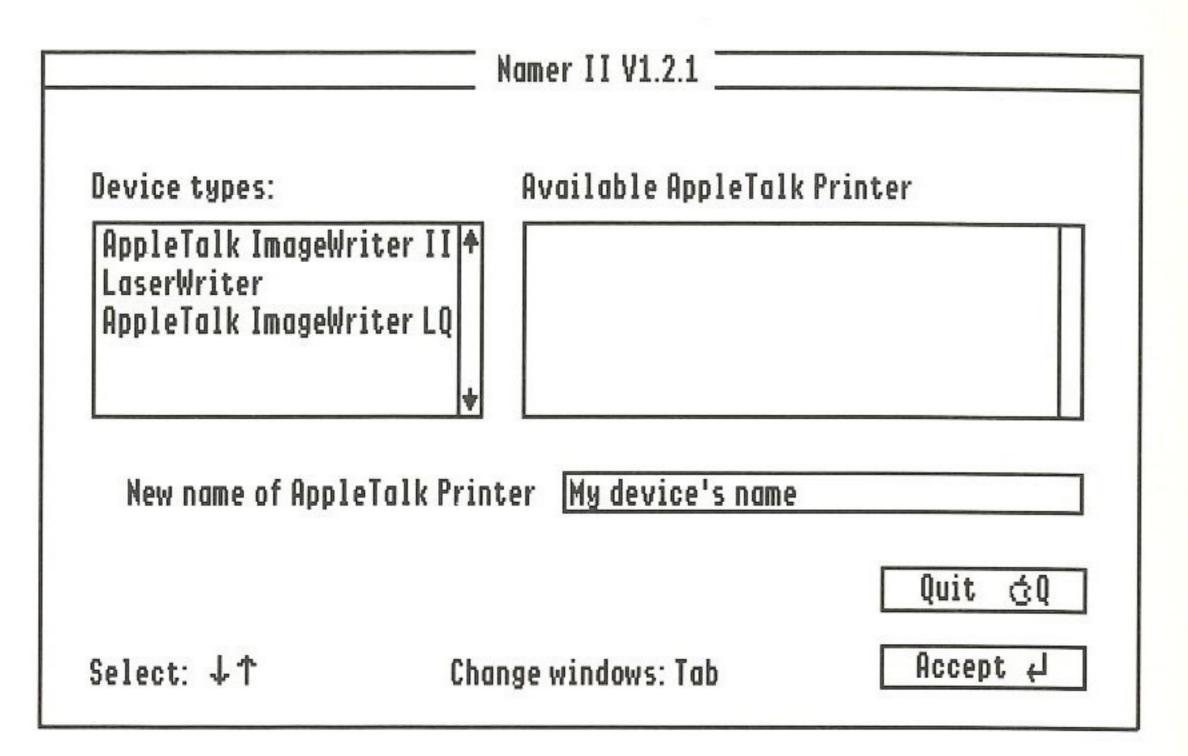
Network printers need to be named only once. Anyone on the network can rename a printer that has already been given a name, but it's a good idea to allow only one person to name printers. If you do rename a printer, be sure to inform all network users; if they want to print with that printer, they'll need to know the new name so that they can select it in the Control Panel. \triangle

Follow these steps to name a printer:

- 1. If you're not already in the Finder, start up your computer with any Finder-based startup disk.
 - The startup disk must include system software version 5.0 (or a later version).
- 2. Insert the Apple IIGS System Tools disk in an empty disk drive.
- 3. Open the System. Tools disk icon.
- 4. Open the AppleTalk folder icon.
- 5. Open the Namer folder icon.
- 6. Open the Namer II application icon.

 In a few moments you'll see the screen shown in Figure 4-2.

■ Figure 4-2 The Namer



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7. Select the type of printer you want to name.

Click the type of printer in the window on the left (or press the Down Arrow key until the type is highlighted and then press Return or Tab).

The arrow pointer changes to an hourglass while the Namer checks the network for all printers of the selected type and lists their current names in the window on the right. (If there are no network printers of that type, the box will be empty when the hourglass changes back to an arrow; if a printer has not yet been named, its default name—LaserWriter, ImageWriter LQ, or ImageWriter II—is given.)

The window on the right becomes the active window, indicated by a scroll bar along the right side of the window.

A word about zones: If your AppleTalk network system is divided into zones, the Namer will show only those printers in your zone. It isn't possible to name a printer in a different zone from the one that includes your Apple IIGS. If you want to name a printer in another zone, you must do so from a computer in that zone.

8. Select the printer you want to name.

Click the printer's name in the list of available printers on the right (or press Down Arrow until the printer's name is highlighted and then press Return or Tab). If there are more than five printers of the type you selected in step 7, you may need to scroll through the window to find the printer name you want.

The name in the box below changes from My device's name to the current name for the printer you selected.

- 9. Edit the current name, or type a new name.
- 10. Click the Accept button (or press Return).

The arrow pointer changes to an hourglass while the Namer renames the printer. When the hourglass changes back to an arrow, the window on the right shows the printer's new name.

- 11. Repeat steps 8 through 10 to name other printers of the same type.
- 12. Repeat steps 7 through 11 to name printers of other types.
- 13. Quit the Namer.
- Click the Quit button (or Press Command-Q) to quit the Namer and return to the Finder desktop.
- 14. Notify everyone on the network that they must use the Control Panel to choose a printer again if they want to print with one of the renamed printers.

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Troubleshooting

HIS CHAPTER HELPS YOU DEAL WITH THE UNEXPECTED WHEN USING YOUR computer on an AppleTalk network system with LocalTalk cables.

For assistance with problems that may occur with your Apple IIGs computer, see Chapter 9 of the *Apple IIGs System Software User's Guide*.

This section describes some unexpected situations you may encounter when installing system files for starting up over the network, logging on over the network, using an AppleShare file server, or printing over the network.

Throughout this chapter, suggested solutions often refer to your network administrator. If you have a network administrator, remember that he or she is an important troubleshooting resource. If you can't figure out why something happened from the information in this section, ask the administrator for suggestions.

Using the Installer

When you're installing the AppleShare on 3.5 Disk update, you see the message "WARNING: This update makes a 3.5-inch disk into an AppleShare disk. Files will be removed. Install any desired printer driver separately (only one will fit). Do NOT install this update on your only copy of the system disk."

Because of space constraints, a 3.5-inch disk cannot accommodate the complete system files *and* AppleShare. The AppleShare on 3.5 Disk update gives you an abbreviated version of the system files, removing all but the bare essentials. Be sure you aren't installing this update on your only copy of the system disk. (In fact, you'll probably want to install it on a blank disk.)

If you want to install the update, click Perform This Update. Otherwise, click Skip This Update.

When you're installing the Local Network Startup update, you see the message "WARNING: Install this update only on non-server disks. This update installs system files for starting up over the network. Some files, including the Finder, are removed. Proceed with caution."

The Local Network Startup update creates a disk that lets you start up directly from a file server but does not give you access to the Finder. If the disk you're installing this update on contains the Finder, the Finder will be removed during the installation. Be sure you aren't installing this update on your only copy of the system disk. (In fact, you'll probably want to install it on a blank disk.)

If you want to install the update, click Perform This Update. Otherwise, click Skip This Update.

When you're installing the Server Network Startup update, you see the message "WARNING: Install this update only on a file server's startup volume. This update installs system files for starting up over the network. Some files, including ProDOS, are removed. Proceed with caution."

When the Server Network Startup update is installed on the startup volume of a file server, network users can start up directly from a file server without using a startup disk in a local disk drive. This update should be installed only on the startup volume of a file server, and only by the network administrator.

If you want to install the update, click Perform This Update. Otherwise, click Skip This Update.

When you're installing an update on a file server volume, you see the message "Access error. Cannot change file."

You don't have the Make Changes privilege for the file server volume or the System folder on the file server volume. (Or, if you're installing an application update in a folder, the privileges for the folder.)

If you're the network administrator, log on as the administrator and install the update. Otherwise, ask the administrator to install the update for you.

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Removing an update that you've installed is not always the same as not having installed it in the first place. (When you install AppleShare on 3.5 Disk, for example, there isn't room for all system files, so the Installer creates an abbreviated version by removing certain files. Subsequently removing the AppleShare on 3.5 Disk update cannot reinstate the files that have been deleted—it can only remove the files that have been added.) \triangle

Starting up over the network

You see the message "Check startup device!"

This message appears whenever the computer can't find the system software necessary to start up the computer. Other possible causes of this problem are listed in Chapter 9 of the *Apple IIGS System Software User's Guide*.

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- The Control Panel setting for the startup slot is incorrect. See "Changing Your Startup Drive" in Chapter 9 of the *Apple IIGs System Software User's Guide* for more information. Then use the text Control Panel to change the startup slot as necessary.
- The startup slot in the Control Panel is set to AppleTalk, no startup file server volume is available in your zone, and there isn't a startup disk in any disk drive. (This situation occurs either when the appropriate software has not been installed on the file server or when the file server has been shut down.)

Ask your network administrator whether a file server in your zone allows Apple II users to start up directly over the network. If there is no such server in your zone, use the text Control Panel to change the startup slot setting so that you can start up from a local disk drive. (See "To Get to the Text Control Panel" and "Changing the Startup Drive" in Chapter 7 of the Apple IIGS System Software User's Guide.)

If the file server has been temporarily shut down, insert a startup disk in a disk drive and press Command-Control-Reset to restart. (When the computer doesn't find a startup server volume, it scans the computer's slots for a startup disk.)

You see the message "GS/OS requires ROM version 01 or newer."

GS/OS requires ROM version 01 of the ROM, or a newer version. Go to your dealer to get a *free* upgrade to ROM 01.

Logging on from the Control Panel

This section lists unexpected situations you may encounter when trying to log on to an AppleShare file server from the Control Panel.

When you start up the computer, you see the message "AppleShare.FST requires AppleShare. Please enable AppleTalk in the Control Panel, install AppleShare on the boot disk and re-boot the system."

One of the following conditions is the cause:

The slot settings in the Control Panel are not set up for access to the AppleTalk network system. Press Return to continue starting up. When you see the Finder desktop, use either version of the Control Panel to change the appropriate slot settings.

If your computer is connected to the network via the printer port, Slot 1 should be set to Your Card. If your computer is connected to the network via the modem port, Slot 2 should be set to Your Card. For ROM version 01, it's required that you set slot 7 to AppleTalk as well (this setting is optional for a newer ROM). For more information, see "Activating Slots and Ports" in Chapter 9 of the *Apple IIGs System Software User's Guide*.

When you restart the computer after changing the slot settings, you shouldn't see the message again.

Some of the AppleTalk or AppleShare files are missing from the current startup disk. Press Return to continue starting up. Then use the Installer to reinstall the networking updates you need.

If you're installing on a 3.5-inch disk, install AppleShare on 3.5 Disk and (if you wish) one network printer update. If you're installing on a hard disk, install AppleShare and as many network printer updates as you want. Then quit the Installer and click Restart System in the dialog box that appears. When the computer restarts this time, you shouldn't see the message again.

You can't find the AppleShare file server you want in the Control Panel.

One of the following conditions may be the cause:

AppleShare isn't installed on your startup disk. Follow the instructions in "Installing the Appropriate Networking Updates" in Chapter 2.

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- The computer's slot settings are incorrect in the Control Panel. If your computer is connected to the network via the printer port, Slot 1 should be set to Your Card. If your computer is connected to the network via the modem port, Slot 2 should be set to Your Card. For ROM version 01, it's required that you set slot 7 to AppleTalk as well (this setting is optional for a newer ROM). For more information, see "Activating Slots and Ports" in Chapter 9 of the *Apple IIGs System Software User's Guide*.
- The file server isn't selected in the Control Panel. Follow the instructions in "To Log on to a File Server" in Chapter 9 of the *Apple IIGs System Software User's Guide*.
- A lot of people may be using the file server or the network. Wait 15 or 20 seconds after you select the AppleShare icon in the Control Panel—or after selecting a zone in the AppleShare options—and see if the desired file server appears in the list.
- The file server has been shut down. It is sometimes necessary for the network administrator to shut down the file server to perform certain administrative tasks. Ask the administrator when the file server will be available again.
- Communication on the LocalTalk network has been interrupted. Ask the network administrator to check for disconnected LocalTalk cables between your computer and the file server you're trying to use.
- ☐ The file server is in a different zone. Make sure the correct zone is selected in the Control Panel.

You can't find your zone in the Control Panel.

Communication on the LocalTalk network may have been interrupted. Ask the network administrator to check for disconnected LocalTalk cables between your computer and the file server that you're trying to use.

You see the message "Unknown user or log on is disabled. Please retype the name or contact the server's administrator."

One of the following conditions may be the cause:

- ☐ You made a typing error when supplying your user name. Try typing the name again.
- The network administrator gave you an incorrect user name. Check with the administrator to make sure you're using the correct name.
- □ You aren't allowed to log on to that file server. Ask the network administrator whether you have access to the file server in question.
- You're trying to log on as a guest to a file server that doesn't allow guests to have access. Ask the network administrator whether guests can have access to the file server in question.

Starting up over the network or logging on with a disk that doesn't include the Finder

This section lists unexpected situations you may encounter when trying to start up over the network or log on to an AppleShare file server with a startup disk that doesn't include the Finder.

You see the message "AppleShare.FST requires AppleShare. Please enable AppleTalk in the Control Panel, install AppleShare on the boot disk and re-boot the system."

One of the following conditions is the cause:

The slot settings in the Control Panel are not set up for access to the AppleTalk network system. Press Return. Then use the text Control Panel to change the appropriate slot settings.

If your computer is connected to the network via the printer port, Slot 1 should be set to Your Card. If your computer is connected to the network via the modem port, Slot 2 should be set to Your Card. For ROM version 01, it's required that you set slot 7 to AppleTalk as well (this setting is optional for a newer ROM). For more information, see "Activating Slots and Ports" in Chapter 9 of the *Apple IIGs System Software User's Guide*.

If you're starting up over the network (rather than from a local disk), make sure that Startup is set to AppleTalk in the Slots menu.

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- When you restart the computer after changing the slot settings, you shouldn't see the message again.
- Some of the AppleTalk or AppleShare files are missing from the current startup disk. Press Return, then eject the disk and ask your network administrator to perform the necessary installation for you. (Or, if you have access to the *Apple IIGs System Disk* and the *Apple IIGs System Tools* disk, use the Installer to add the appropriate update: Server Network Startup if you want to start up over the network, Local Network Startup if you want to start up with a disk that doesn't include the Finder.)
 - When you restart the computer after the necessary update has been installed, you shouldn't see the message again.

You see the message "Cannot load file Start.GS.OS."

One of the following conditions is the cause:

- You don't have the See Files or See Folders privilege for the System folder on the file server's startup volume. Ask the network administrator to give those privileges to everyone on the network.
- The Server Network Startup update has not been installed on the startup volume of the file server. Ask the network administrator to install this update.

You see an error message numbered \$0044, \$0046, or \$004E.

You don't have the necessary access privileges for your startup application or for some of the files or folders in the System folder on the startup volume. Ask the network administrator to give you the necessary privileges.

You see the message "Unknown user or login is disabled. Please retype the name or contact the network administrator."

One of the following conditions may be the cause:

- You made a typing error when supplying your user name. Try typing the name again.
- The network administrator gave you an incorrect user name. Check with the administrator to make sure you're using the correct name.

- You aren't allowed to log on to that file server. Ask the network administrator whether you have access to the file server in question.
- You're trying to log on as a guest to a file server that doesn't allow guests to have access. Ask the network administrator whether guests can have access to the file server in question.

You see the message "The server is not responding. You cannot connect to it."

There's a problem with the file server itself or with the network cables. Ask the network administrator to check the server and cables and resolve the problem.

You see the message "This file server uses an incompatible version of the AFP protocol. You cannot connect to it" or the message "This file server does not use a recognizable logon sequence. You cannot connect to it."

The file server is not running AppleShare File Server software version 2.0 or a more recent version. Ask the network administrator to upgrade the file server to version 2.0, or log on to a different file server that is running a compatible version of the software.

You see the message "The attempted connection to the server's volume has failed."

You don't have access to one of the file server volumes you tried to connect to. Ask the network administrator to give you the necessary access privileges for that volume, or log on to a different volume.

You see the message "Your startup configuration has not been set up properly. Contact the network administrator."

The file that contains the name of your startup application, prefix (if any), and printer (if any) is damaged. Ask the network administrator to set a valid startup application, prefix, and printer.

You see the message "Contact the network administrator. This startup path was not found."

The pathname of your startup application is incorrect. Either one or more names within the pathname have changed, or the access privileges to the file server volume or one of the folders have changed.

Make a note of the startup pathname given in the message, and then ask the network administrator to set your startup application again.

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You see the message "Contact the network administrator. An error occurred launching the startup path."

You probably don't have the appropriate access privileges to launch the startup application.

Make a note of the startup pathname given in the message, and then ask the network administrator to make sure you have the proper access privileges.

Using an AppleShare file server

This section lists unexpected situations you may encounter when trying to use an AppleShare file server.

When copying an item from an AppleShare file server volume to a local disk, you see the message, "The file/folder name 'ICON NAME' is unacceptable to the destination file system."

The item you're trying to copy has a name that is acceptable to the AppleShare file system (used on the file server volume) but not to the ProDOS file system (used on the local disk). You have several options:

- The suggested name is a translation of the AppleShare name into an acceptable ProDOS name. (Characters other than letters, numbers, or periods are changed to periods, and the name is shortened to 15 characters.) If you want to accept the suggested name, click OK.
- ☐ If you don't like the suggested name, type a new name that conforms to ProDOS naming rules (described in Chapter 3 of the *Apple IIGs System Software User's Guide*), and then click OK.

- ☐ If you're copying several items and want to skip this item, click the Skip File button.
- If you're copying several items and want *all* names that don't conform to ProDOS naming rules to be translated automatically, click the "Translate bad file names" button.
- If you're copying several items and want to skip *all* items whose names don't conform to ProDOS naming rules, click the "Skip bad file names" button.
- ☐ If you decide to cancel the copying operation altogether, click Cancel.

You see the message "The changes to some folders could not be applied (access privileges error)."

You clicked "Apply to enclosed folders" but you don't own one or more of the enclosed folders, and therefore cannot change their access privileges.

If the administrator is assigned "All privileges," then he or she may change access privileges for any folder, even if the administrator is not the owner.

Printing a document over the network

These suggestions assume that you are printing over the network. If the troubleshooting suggestions in this section don't help, consult the manuals that came with your printer and with your application.

Your computer is part of the AppleTalk network system, but you can't print to your usual network printer.

One of the following conditions may be the cause:

- You haven't installed the appropriate network printer update on your startup disk. Follow the instructions in "Installing the Appropriate Networking Updates" in Chapter 2.
- After installing the appropriate network printer update, you removed a different networking update (either another of the network printer updates or the AppleShare update) from your startup disk. Removing any networking update deletes certain files that all networking updates share. Reinstall the desired network printer update following the instructions in "Installing the Appropriate Networking Updates" in Chapter 2.

- The computer's slot settings are incorrect in the Control Panel. If your computer is connected to the network via the printer port, Slot 1 should be set to Your Card. If your computer is connected to the network via the modem port, Slot 2 should be set to Your Card. For ROM version 01, it's required that you set slot 7 to AppleTalk as well (this setting is optional for a newer ROM). For more information, see "Activating Slots and Ports" in Chapter 9 of the *Apple IIGs System Software User's Guide*.
- The printer isn't selected in the Control Panel. If you haven't selected a printer in the Control Panel, follow the instructions in Chapter 4. If you have selected a printer but now find that you can't print, someone may have switched the printer off in the meantime. If that's the case, switch on the printer and select it again in the Control Panel.
- Someone has renamed the printer. Ask your network administrator and the other network users whether they have changed the printer's name.
 When you know the new name, use the Control Panel to select the printer by its new name.

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Communication on the LocalTalk network has been interrupted. Ask the network administrator to check for disconnected LocalTalk cables between your computer and the network printer you're trying to use.

You can't print with a LaserWriter IInt or a LaserWriter IIntx.

If none of the solutions given earlier in this section seems to help, one of the following conditions may be the cause:

- You haven't installed the LaserWriter update on your startup disk. Follow the instructions in "Installing the Appropriate Networking Updates" in Chapter 2.
- The computer's slot settings are incorrect in the Control Panel. If your computer is connected to the network via the printer port, Slot 1 should be set to Your Card. If your computer is connected to the network via the modem port, Slot 2 should be set to Your Card. For ROM version 01, it's required that you set slot 7 to AppleTalk as well (this setting is optional for a newer ROM). For more information, see "Activating Slots and Ports" in Chapter 9 of the *Apple IIGs System Software User's Guide*.

- The printer was switched off, and no one has installed the ImageWriter Emulator in the printer's memory since it was switched on again. Select the printer in the LaserWriter options in the graphic Control Panel and click the ImageWriter Emulator button. (For more detailed instructions, see "Choosing a Network Printer" in Chapter 4.)
- You don't have a LocalTalk connector box connected to both the computer and the printer. (You can't connect a LocalTalk cable directly to a computer or a peripheral device—you must attach a connector box to each device, and then connect the two connector boxes with a LocalTalk cable.)

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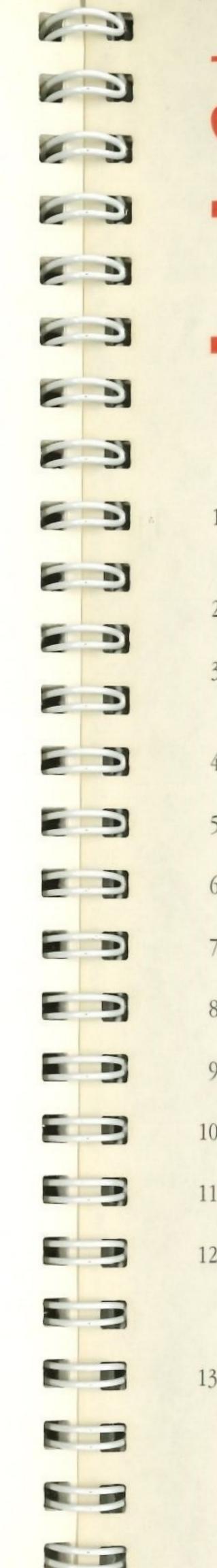
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- 1. How long have you been using the AppleShare file server? (**4**=over one year)
- 2. How much experience have you had with computers? (1=no
- 3. What types of software applications are you using most frequ 3=multi-user database, 4=communications, 5=graphics, 6=spr
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- 10. How easy was it to find the information you needed? (1=diff
- 11. How much of the guide did you read? (1=entire guide, 2=sp
- 12. If you experienced any problems with the guide, please designated
- 13. What suggestions do you have for improving the AppleShare

Thanks for your time and effort.

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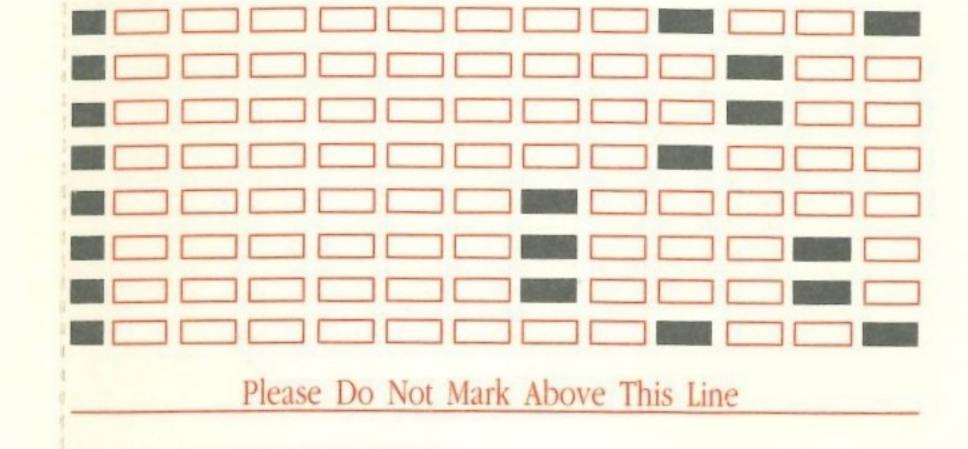
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- 1. How long have you been using the AppleShare file server? (1=less than one month, 2=1 to 6 months, 3=7 to 12 months, 4=over one year)
- 2. How much experience have you had with computers? (1=none...6=extensive)
- 3. What types of software applications are you using most frequently with AppleShare? (1=word processing, 2=database, 3=multi-user database, 4=communications, 5=graphics, 6=spreadsheet, 7=games, 8=other)
- 4. How easy was it to install and use the AppleShare components of system software 5.0? (1=difficult, 6=very easy)
- 5. How would you rate the AppleTalk Network User's Guide for the IIGS overall? (1=poor...6=excellent)
- 6. How easy was the guide to read and understand? (1=difficult...6=very easy)
- 7. How helpful was the guide in learning how to use the Apple IIGs with an AppleShare file server? (1=not helpful...6=very helpful)
- 8. How helpful was the guide in learning how to use the Apple IIGS with AppleTalk printing services? (1=not helpful...6=very helpful)
- 9. How would you rate the organization of the guide? (1=poor...6=excellent)
- 10. How easy was it to find the information you needed? (1=difficult...6=very easy)
- 11. How much of the guide did you read? (1=entire guide, 2=specific chapters, 3=for reference only, 4=none of it)
- 12. If you experienced any problems with the guide, please describe them. (Page numbers would be useful.)
- 13. What suggestions do you have for improving the AppleShare experience for the Apple IIGs?

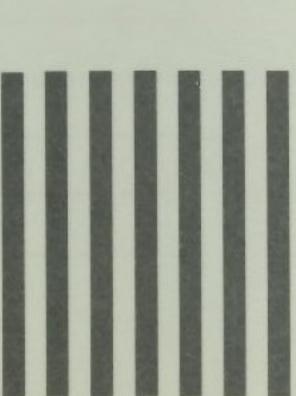


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*Apple IIGS® System Software Update Version 5.0

Packing List

This package contains the following items:

| 3 | Disks: | Apple IIGS System Disk | 680-5051 |
|---|--|---|----------|
| | | Apple IIGS System Tools Disk | 680-5052 |
| | | AppleShare® File Server Apple II Setup Disk | 680-5060 |
| 2 | Manuals: | Apple IIGS System Software User's Guide Version 5.0 | 030-1622 |
| | | (with Tell Apple card inserted in the manual) | 030-1623 |
| | | AppleTalk Network User's Guide for the Apple IIGS | 030-1633 |
| | | (with Tell Apple card inserted in the manual) | 030-1634 |
| 1 | Apple Software Update program brochure | | 030-3400 |
| 1 | Software license agreement | | 010-0100 |

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This update replaces the section titled "Creating a 3.5-Inch Networking Startup Disk" on pages 24–26 of the *AppleTalk Network User's Guide for the Apple IIcs*. If you're installing any networking updates on 3.5-inch startup disks, you'll need to refer to the instructions in this update. There are four possible procedures; follow the instructions in the section corresponding to your networking needs.

If you want to use AppleShare file servers but not network printers

- Start up the computer with a backup copy of the system disk. (The disk icon must be named System. Disk.)
- 2. Initialize a blank disk and name it *AppleShare*. (For instructions, see "To Initialize a Disk" in Chapter 2 of the *Apple IIGs System Software User's Guide*, *Version 5.0.*)
- 3. Insert a backup copy of the system tools disk in an empty disk drive. (The disk icon must be named *System.Tools.*)
- 4. Open the System. Tools icon.
- 5. Open the Installer icon.
- 6. Click the Disk button until the name *AppleShare* appears above the window on the right side of the Installer. (If you've ejected this disk, its name won't appear; insert the disk and click the Disk button until the name appears.)
- 7. Select AppleShare on 3.5 Disk.
- 8. Click Install.
- 9. Click Perform This Update. (Because you're installing on a blank disk, you needn't be concerned about the warning in the dialog box.)
 - Note: If you have two disk drives, you can speed up the installation by leaving the AppleShare disk in a disk drive throughout the process, swapping the system disk and the system tools disk as necessary. (The computer will prompt you with a message whenever you need to insert a different disk.)
- When you see a dialog box indicating that the installation was successful, click OK.
- 11. Quit the Installer.
- 12. Restart the computer with the AppleShare startup disk that you just created.
- 13. When the computer prompts you, type your user name as it was given to you by the network administrator.

In a few moments you'll see the Finder[™] desktop. Whenever you start up with this disk, you'll be able to log on to AppleShare® file servers on the network.

If you want to use AppleShare file servers and LaserWriter printers

- 1. Start up the computer with a backup copy of the system disk. (The disk icon must be named *System.Disk.*)
- 2. Initialize a blank disk and name it *AppleShare*. (For instructions, see "To Initialize a Disk" in Chapter 2 of the *Apple IIGs System Software User's Guide, Version 5.0.*)
- 3. Insert a backup copy of the system tools disk in an empty disk drive. (The disk icon must be named *System.Tools.*)
- 4. Open the System. Tools icon.
- 5. Open the Installer icon.
- 6. Click the Disk button until the name *AppleShare* appears above the window on the right side of the Installer. (If you've ejected this disk, its name won't appear; insert the disk and click the Disk button until the name appears.)
- 7. Select LaserWriter.
- 8. Click Install.
- When you see a dialog box indicating that the installation was successful, click OK.
- 10. Select AppleShare on 3.5 Disk.
- 11. Click Install.
- 12. Click Perform This Update. (Because you don't need the files that will be removed, you needn't be concerned about the warning in the dialog box.)
 - Note: If you have two disk drives, you can speed up the installation by leaving the AppleShare disk in a disk drive throughout the process, swapping the system disk and the system tools disk as necessary. (The computer will prompt you with a message whenever you need to insert a different disk.)
- 13. When you see a dialog box indicating that the installation was successful, click OK.
- 14. Quit the Installer.
- 15. Restart the computer with the AppleShare startup disk that you just created.
- 16. When the computer prompts you, type your user name as it was given to you by the network administrator.

In a few moments you'll see the Finder desktop. When you start up with this disk, you'll be able to log on to AppleShare file servers and use LaserWriter® printers on the network.

\triangle Important

If you want to use a LaserWriter printer that has been switched off and then on again, you'll need to download the ImageWriter® emulator, as described in "Choosing a Network Printer" in Chapter 4 of the *AppleTalk Network User's Guide for the Apple IIGs*. Because of space constraints, the startup disk you've just created doesn't include the emulator program. (The emulator is installed as part of the LaserWriter update, but it is removed when you install the AppleShare on 3.5 Disk update on a disk that already has the LaserWriter update.) To download the ImageWriter emulator to a LaserWriter, you must first start up with a disk that has the *complete* LaserWriter update. (To create such a disk, follow the instructions in the following section.) △

If you want to use one or two types of network printers but not AppleShare file servers

- 1. Start up the computer with a backup copy of the system disk. (The disk icon must be named System. Disk.)
- 2. Initialize a blank disk and name it *Printer*. (For instructions, see "To Initialize a Disk" in Chapter 2 of the *Apple IIGs System Software User's Guide*, *Version 5.0*.
- 3. Insert a backup copy of the system tools disk in an empty disk drive. (The disk icon must be named *System.Tools.*)
- 4. Open the System. Tools icon.
- 5. Open the Installer icon.
- 6. Click the Disk button until the name *Printer* appears above the window on the right side of the Installer. (If you've ejected this disk, its name won't appear; insert the disk and click the Disk button until the name appears.)
- 7. Select AppleShare on 3.5 Disk.
- 8. Click Install.
- 9. Click Perform This Update. (Because you're installing on a blank disk, you needn't be concerned about the warning in the dialog box.)
- Note: If you have two disk drives, you can speed up the installation by leaving the *Printer* disk in a disk drive throughout the process, swapping the system disk and the system tools disk as necessary. (The computer will prompt you with a message whenever you need to insert a different disk.)
- When you see a dialog box indicating that the installation was successful, click OK.
- 11. Select AppleShare. (Do not select AppleShare on 3.5 Disk again.)
- 12. Click Remove. (Removing AppleShare leaves a pared-down set of system files so that there is room to install one or two network printer updates on the disk.)
- When you see a dialog box indicating that the removal was successful, click OK.
- 14. Select the network printer update or updates that you want. (To select more than one update, hold down the Command key while you click each name.) Any two updates will fit on the disk—but not all three.
- 15. Click Install.
- 16. When you see a dialog box indicating that the installation was successful, click OK.
- 17. Quit the Installer.
- 18. Restart the computer with the Printer startup disk that you just created.

In a few moments you'll see the Finder desktop. Whenever you start up with this disk, you'll be able to use network printers of the type or types for which you've installed an update. This is also the startup disk you'll use to download the ImageWriter emulator when printing to a LaserWriter for the first time after it has been switched on. (For more information, see the previous section and "Choosing a Network Printer" in Chapter 4 of the *AppleTalk Network User's Guide for the Apple IIGS*.)

If you want to use AppleShare file servers and ImageWriter or ImageWriter LQ printers

- 1. Start up the computer with a backup copy of the system disk.
- 2. Initialize a blank disk and name it *AppleShare*. (For instructions, see "To Initialize a Disk" in Chapter 2 of the *Apple IIGs System Software User's Guide*, *Version 5.0*.
- 3. Insert the system tools disk in an empty disk drive.
- 4. Open the System. Tools icon.
- 5. Open the Installer icon.
- 6. Click the Disk button until the name *AppleShare* appears above the window on the right side of the Installer. (If you've ejected this disk, its name won't appear; insert the disk and click the Disk button until the name appears.)
- 7. Select AppleShare on 3.5 Disk.
- 8. Click Install.
- 9. Click Perform This Update. (Because you're installing on a blank disk, you needn't be concerned about the warning in the dialog box.)
 - Note: If you have two disk drives, you can speed up the installation by leaving the AppleShare disk in a disk drive throughout the process, swapping the system disk and the system tools disk as necessary. (The computer will prompt you with a message whenever you need to insert a different disk.)
- When you see a dialog box indicating that the installation was successful, click OK.
- 11. Select ImageWriter or ImageWriter LQ. (Both updates won't fit on a disk that already contains the AppleShare on 3.5 Disk update.)
- 12. Click Install.
- When you see a dialog box indicating that the installation was successful, click OK.
- 14. Quit the Installer.
- 15. Restart the computer with the AppleShare startup disk that you just created.
- 16. When the computer prompts you, type your user name as it was given to you by the network administrator.

In a few moments you'll see the Finder desktop. When you start up with this disk, you'll be able to log on to AppleShare file servers and use ImageWriter or ImageWriter LQ printers on the network.

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